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FD 19 -59
December ,1959

RECOMBINED DAIRY PRODUCTS NOW BEING MADE ON ELEUTHERA ISLAND 1/

A dairy plant using U. S. dairy products is now conducting recombining operations on Eleuthera Island, in the Bahamas.

About 100 head of a 350 head herd of Holstein and Guernsey cattle are being milked, and produce about 180 to 190 gallons of milk daily. During the flush, the production reaches 300 to 350 gallons daily. This milk is blended with recombined milk made from instant, spray-dried nonfat milk and 40 percent cream obtained from the United States. It is pasteurized, homogenized and bottled in paper cartons and shipped to Nassau 3 times a week. About 4,200 gallons of milk a week is being shipped, of which about one-half to two-thirds is recombined. This amount will increase considerably from December through April during the tourist season. This product retails in Nassau for 42 cents a quart.

The management of the plant expressed interest in using anhydrous milk fat with extra grade low-heat, spray-dried nonfat for recombining instead of 40 percent cream and "instant" nonfat.

1/ This Circular is based upon firsthand observations of L. H. Burgwald, dairy marketing specialist, while demonstrating recombining procedures on Eleuthera Island at the plant referred to in this Circular.

In addition to the blended milk, chocolate flavored milk made with a U. S. brand of whole milk powder is being made. Experiments were being made with a coffee flavored milk, and the possibility of a caramel flavored one was being studied.

The plant had produced an ice cream mix made from an ice cream mix powder obtained from the United Kingdom. This product was not satisfactory, so now the ice cream mix is made from instant nonfat dry milk and 40 percent cream. About 350 gallons of ice cream mix is being made per week. This will now be made from low heat, extra grade spray process nonfat and anhydrous milk fat.

Instructions and assistance was given in the preparation of batches of the following products from low-heat, extra grade spray process nonfat dry milk and anhydrous milk fat:

1. Blended milk: 3.7 percent fat and 8.6 percent solids not fat.

   This was made with 40 gallons of fresh raw milk testing 3.3 percent fat and 8.0 percent solids not fat, and 60 gallons of recombined milk testing 4.0 percent fat and 9.0 percent solids not fat. The milk was pasteurized to 160°F, the holding time being taken when the milk reached 145°F, and was held for 30 minutes. This high pasteurization temperature was used to insure better keeping quality because the milk was only delivered 3 times a week.

   The milk was homogenized, cooled and bottled in quarts, imperial pints and half-pint paper bottles.

2. 40 percent cream: 40 percent fat, 6 percent solids not fat.

   Two 8-gallon batches of 40 percent cream were made using 4.0 pounds of low heat spray dried nonfat milk, 36.25 pounds (4-1/3 gallons) of water. These were mixed and 26.75 pounds of anhydrous milk fat were added and pasteurized at 150°F for 30 minutes, then homogenized at 400 to 500 pounds pressure, and cooled in the can. These batches were made from 2 different lots of anhydrous milk fat. Samples of both batches "feathered" when mixed with equal parts of fresh 40 percent cream and when standardized to 20 percent fat with blended milk.

3. 20 percent cream: 20 percent fat, 7 percent solids not fat.

A 5-gallon batch of 20 percent cream was made by mixing 3.0 pounds of nonfat with 31.5 pounds (3.8 gallons) of water, adding 8.6 pounds of anhydrous milk fat, pasteruizing, homogenizing at 300 pounds pressure and cooling in the can. Samples of this product did not "feather" when added to hot coffee, but it was reported that 2 days later there was a "cream plug" on the product.

4. Low fat milk: 2 percent fat, 10.5 percent solids not fat.

A 5-gallon batch of low-fat milk was made up using 4.4 pounds of low heat nonfat. 36.45 pounds (4.38 gallons) of water and 2.15 pounds of recombined 40 percent cream. It was pasteurized, homogenized, and cooled in the can. This was a very acceptable product.

5. Chocolate drink: 1.8 percent fat, 5 percent sugar, 1.33 percent cocoa, 10 percent nonfat milk solids.

A batch of chocolate flavored drink of about 210 gallons was made up by mixing 175 pounds of low heat nonfat with 1,425 pounds (172 gallons) of water, and adding 83 pounds (10 gallons) of recombined 40 percent cream, and 23.75 pounds of chocolate mixed dry with 90 pounds of sugar. It was then pasteurized at 160°F for 30 minutes and homogenized, cooled and bottled in paper cartons.

6. Half and Half: 11 percent fat, 9 percent solids not fat.

A 5-gallon batch of half and half was made mixing 4.12 pounds of low heat nonfat dried milk with 27.08 pounds (3.25 gallons) of water and adding 11.8 pounds of recombined 40 percent cream. This product was pasteurized, homogenized at 1,000 pounds pressure and cooled in the can. This was a very acceptable product.

Conclusions

It was reported that the management placed an order for 1,000 pounds of anhydrous milk fat and a carload of extra grade, spray process, low heat nonfat dry milk. This indicates satisfaction with the results obtained using these products in the manufacture of recombined milk and dairy products.

It is estimated a saving of approximately 11 cents per gallon ingredient cost on every gallon of recombined milk made will result from using these products, as compared to the use of fresh 40 percent cream and instant nonfat dry milk.

UNITED STATES DEPARTMENT OF AGRICULTURE
Washington 25, D. C.

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FD 18-59
November 30, 1959

WORLD OUTPUT OF DAIRY PRODUCTS IN SECOND QUARTER OF 1959

The over-all factory production (milk equivalent fat basis) of dairy products in the second quarter of 1959 declined slightly from the corresponding period a year earlier. In the major dairy countries, canned milk and dried milk production was higher, but butter output was lower. Cheese production was practically unchanged.

In Western Europe, where milk production reflected the initial effects of drought, milk output decreased in some countries but increased in others, so that the second quarter total was nearly as great as in the corresponding period a year earlier. Among the countries with drought-decreased milk production were France, Belgium and Luxemburg; in the United Kingdom, Ireland, and Sweden, lower unit returns also affected output. Production was greater in West Germany, Denmark, the Netherlands, Finland and Norway, in spite of some effects of drought, and output was also larger in Switzerland, Italy, Greece and Austria, where pasture and feed conditions were favorable.

Climatic conditions were good for milk production in most dairy areas of both Australia and New Zealand.

This circular contains more detailed information than the summary of similar title published in the monthly supplement of Foreign Crops and Markets of October 29, 1959.

Canada's milk production remained near the 1958 level in spite of reduced cow numbers and retarded pastures. In the United States, milk production showed a slight decline.

Butter

Factory butter output in the second quarter of 1959 was down 5 percent from the corresponding quarter of 1958. Production in France and Ireland declined sharply, due to the decreased milk production and in part to increased diversion of milk to other dairy products. In the Netherlands, export prospects, especially for cheese, canned milks, and dry whole milk, altered the production pattern completely, with the result that larger quantities of these products were produced, and less butter. Smaller milk production, combined with larger fluid milk consumption, reduced milk supplies for manufacturing in the United Kingdom. Sweden's output of butter in the second quarter also was less than that of a year ago, in response to lower support prices.

On the other hand, a large part of the increased milk output in Denmark, West Germany, Norway, Finland and Switzerland was used for butter.

An increase in Australia's butter production reflected some diversion of milk to factory products, but in New Zealand, less milk was used for manufacturing in this period.

Sales of fluid milk and farm use of milk both increased in Canada. As a result, there was less milk available for processing, and butter output was smaller. In the United States, some increase in fluid milk and ice cream sales lowered the quantity of milk available for manufacturing, especially for butter; output of butter was, therefore, down from a year earlier.

Cheese

Cheese production in factories remained at approximately the 1958 level in the second quarter of the year. Output was up in all reporting countries of Western Europe except France, where it dropped sharply, and in the United Kingdom, where it showed little change from 1958. Production increased in Australia but declined in New Zealand. In Canada, relatively greater assured returns for cheese encouraged the diversion of manufacturing milk from butter to cheese, and output of the latter was above a year earlier. In the United States, it was under that of the corresponding quarter in 1958.

Canned Milk

Canned milk (condensed and evaporated) production was up 7 percent in the April-June quarter of 1959, from the corresponding period of 1958. Output increased in the four reporting countries of Western Europe - the Netherlands, West Germany, France, and the United Kingdom. In Australia, it declined.

A sharp decrease in the output of Canadian evaporated milk, by far the most important canned item, accounted for the over-all drop in that country. U. S. production both of evaporated and condensed milks was smaller than last year.

Dried Milk

Total dried milk production was 4 percent larger than that of the corresponding period of 1958, with dry whole milk accounting for the increase. In the Netherlands, dry whole milk output more than doubled, while that of nonfat was only about half of comparable 1958. Production of dry whole milk in Sweden also was larger, but that of nonfat dry milk was smaller. West German output, most of which is nonfat dry milk, ran considerably ahead of last year. Production of all dry milks in France was also higher. In the United Kingdom, output of both kinds of dry milks was down in this period. Over-all dried milk production gained substantially in Australia because of greatly increased nonfat production. In the United States, smaller export demand led to a slight drop in nonfat dry milk production and a greater relative decline in that of dry whole milk. In Canada, production of nonfat dry milk increased slightly, but output of dry whole milk declined.

Current Conditions and Prospects Abroad

Europe

In most countries of northern Europe, persistent drought throughout the late summer and early fall has affected current and prospective milk production over large areas. Pastures are browned and root and forage crops sharply reduced from the Alps north into Scaninavia and from the United Kingdom east into the Soviet Union. The early feeding of hay and roughages foreshadows feed shortages and reduced milk output. Since the necessary reseeding of pastures likewise has been delayed in some areas, milk production may not fully recover until late in 1960.

Among the countries most severely affected are France (where milk production was already being affected by a program encouraging diversion to beef), Belgium and Luxemburg, the United Kingdom and Ireland. Although production through midyear had been above that of a year earlier in such important producing countries as West Germany, Denmark, the Netherlands, Norway, and Finland, the drought reduced hay and roughage supplies and made prospects poor for early spring pasture conditions; this indicates that there may be some reduction in milk output in these countries for the balance of the fiscal year.

On the other hand, good moisture conditions from the Alps through southern Europe have helped increase production and improve prospects for the balance of the winter in Switzerland, Italy, Yugoslavia and Greece.

Southern Hemisphere

The 1959-60 season started well in New Zealand, with production at record levels in spite of poor pastures in the north and extreme south. Recent rains have improved pasture conditions in Australia and Argentina, but drought has continued in the Union of South Africa's important butter and cheese producing areas.

FACTORY DAIRY PRODUCTS: Output in principal producing and exporting countries, April - June, 1959 (preliminary) with comparisons

Country	Butter				Cheese			
	1958	1959		Apr.-June, 1959 compared with Apr.-June, 1958	1958	1959		Apr.-June, 1959 compared with Apr.-June, 1958
	Apr.-June	Jan.-March	Apr.-June		Apr.-June	Jan.-March	Apr.-June	
	1,000 lbs.	1,000 lbs.	1,000 lbs.	Percent	1,000 lbs.	1,000 lbs.	1,000 lbs.	Percent
Canada	108,873	38,317	106,991	98	1/ 30,142	1/ 7,892	1/ 31,718	105
United States	427,185	345,885	405,040	95	438,125	313,785	431,635	98
Denmark	103,396	79,366	114,860	111	75,177	54,454	83,334	111
Finland	47,379	38,477	2/ 54,945	116	--	--	--	--
France 2/	176,370	110,230	129,130	73	224,870	182,955	204,965	91
Germany, West	230,669	196,223	2/ 242,000	105	--	--	--	--
Ireland	39,054	4,771	31,293	80	--	--	--	--
Netherlands	74,213	25,849	57,015	77	126,932	72,574	137,153	108
Norway	12,148	6,042	2/ 13,320	110	27,190	18,327	2/ 30,005	110
Sweden	58,631	33,618	54,859	94	37,110	22,433	38,782	104
Switzerland	20,893	15,591	23,013	110	37,655	23,124	41,120	109
United Kingdom	31,360	3,360	2/ 19,925	64	3/ 79,296	3/ 33,376	2/3/ 79,620	100
Argentina	26,166	44,932	--	--	61,973	77,772	--	--
Union of South Africa	16,297	27,123	--	--	4,677	8,347	--	--
Australia	56,517	123,549	63,058	112	10,551	23,540	13,778	131
New Zealand	48,349	147,421	46,793	97	21,506	58,762	19,213	89

Country	Canned milk				Dried milk 4/			
	1958	1959		Apr.-June, 1959 compared with Apr.-June, 1958	1958	1959		Apr.-June, 1959 compared with Apr.-June, 1958
	Apr.-June	Jan.-March	Apr.-June		Apr.-June	Jan.-March	Apr.-June	
	1,000 lbs.	1,000 lbs.	1,000 lbs.	Percent	1,000 lbs.	1,000 lbs.	1,000 lbs.	Percent
Canada	5/ 124,100	5/ 55,621	5/ 115,003	93	6/ 65,577	6/ 26,066	6/ 66,420	101
United States	7/ 777,050	7/ 480,340	7/ 764,550	98	6/ 614,300	6/ 447,010	6/ 608,790	99
France 2/	40,125	41,345	82,770	206	25,795	17,380	39,700	154
Germany, West	210,194	150,726	2/ 235,650	112	40,050	34,438	67,595	169
Netherlands	167,841	152,759	217,016	129	88,094	31,764	88,420	100
Sweden	--	--	--	--	15,056	6,167	14,683	98
United Kingdom	149,856	81,760	2/ 168,215	112	56,896	18,144	2/ 48,120	85
Argentina	5,006	8,593	--	--	4,178	8,746	--	--
Australia	8/ 22,445	8/ 37,411	8/ 19,613	87	10,483	32,941	15,609	149

1/ Cheddar cheese only. 2/ Estimated. 3/ Total cheese production. 4/ Dried whole milk and nonfat solids production. 5/ Both bulk and case goods. 6/ Includes dried milk for animal feeding. 7/ Evaporated whole and condensed whole case goods only. 8/ Includes mixtures of full cream and skim milk, mixtures of full cream, skim and butter milk, and "coffee and milk."

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other U. S. representatives abroad, and other information.

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FD 17-59
November 30, 1959

1959 WORLD MILK PRODUCTION
DOWN ABOUT 1 PERCENT

World milk production in 1959 is expected to be about 1 percent below 1958, based on reports from 22 principal dairy countries which account for approximately 60 percent of the world's supply. Output in these countries in 1959 is expected to total 385 billion pounds, compared with 389 billion pounds in 1958.

Production in Western Europe is estimated at 2 percent under 1958. The severe drought reduced milk production in several countries during the latter part of the second quarter, and more sharply during the third quarter. Production in France, Sweden, and Belgium was down in the first half of 1959, because of the drought. In France, production was off by 10 percent from the first half of 1958, and indications are that the impact of the dry, hot summer on milk production will be even greater in the last half of 1959. Milk production in most other drought-affected areas in Europe is expected to continue below normal for the remainder of the year because of the short supply of root and forage crops.

The sharp decline in Ireland's milk output reflected both the shortage and low quality of the feed supply in the first part of the year, and the unusual drought during the summer and early autumn. Dry

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This circular contains more detailed information than the summary of similar title published in the monthly supplement of Foreign Crops and Markets of October 29, 1959.

weather and a slight drop in the number of cows being milked reduced milk production in the United Kingdom. Lower assured unit returns likewise affected output. While rain in September brought some relief, it probably was too late to aid pasture growth and, in turn, milk production, in spite of an expected upturn in cow freshenings.

Milk production is expected to be above that of a year ago in West Germany and the Netherlands where increased production in the first half of the year should more than offset drought-reduced output in the last half. In Denmark production held above a year earlier well past midyear but is expected to decline this winter.

The drought has affected regions mainly in a broad belt north of the Alps. In the Alps and through southern Europe adequate moisture, good pastures, and ample forage have been the general rule. Late season production in Norway is expected to be maintained at about last year's level by imported feeds and a crop of good quality hay. In Switzerland, where cow numbers are somewhat higher and forage conditions are satisfactory, milk production will probably show a slight gain over a year ago. Production in Greece, Italy, Austria, and Norway is expected to be up moderately.

Conditions appear to be favorable for dairying in Argentina, where milk production will probably show a gain of about 3 percent. In Australia, an increase in cow numbers and favorable feed conditions in the first half of the year are expected to more than offset the effect of recent less favorable grazing conditions, and 1959 milk output will be above 1958. Milk production in New Zealand will be about the same as the relatively high level of last year.

In Canada and Cuba, milk production probably will show little change from a year ago. Output in Mexico is expected to reach a record high level in 1959. In the United States, milk production will be down slightly from a year ago.

Compared with the average for 1951-55, world milk production in 1959 is up about 8 percent. In Western Europe, output is approximately 9 percent higher, with Sweden the only reporting country producing less milk in 1959 than in the postwar period. Output in other major dairy areas will be higher than the average for the 1951-55 period.

Cow's milk: Estimate of 1959 production in important producing countries, with comparisons

Country	Average 1951-55	Annual			1959 Compared with 1958
		1957	1958	1959 1/	
	Million pounds	Million pounds	Million pounds	Million pounds	Percent
Canada	16,026	17,306	18,057	18,005	100
Mexico	3,806	4,819	5,005	5,539	111
United States	118,959	125,939	125,236	124,600	99
Cuba	1,422	1,720	1,631	1,635	100
Austria	5,336	6,022	6,063	6,205	102
Belgium	7,745	8,202	8,363	8,195	98
Denmark	11,521	11,781	11,292	11,800	104
Finland	6,147	6,942	7,012	7,025	100
France	38,045	46,762	46,535	42,040	90
Germany, West	36,023	38,058	39,392	40,000	102
Greece	494	688	718	730	102
Ireland	5,256	6,365	6,139	5,525	90
Italy	16,663	18,614	19,045	19,425	102
Luxembourg	395	434	445	435	98
Netherlands	12,654	13,098	13,759	13,895	101
Norway	3,554	3,843	3,790	3,870	102
Sweden	9,829	8,896	8,655	8,240	95
Switzerland	5,977	6,327	6,371	6,580	103
United Kingdom	23,251	26,481	25,874	24,845	96
Argentina 2/	10,334	11,350	10,215	10,500	103
Australia	3/ 12,516	13,285	13,414	13,890	104
New Zealand 4/	11,186	11,270	11,903	11,896	100
Total of above countries	357,139	388,202	388,914	384,875	99

1/ Preliminary. 2/ Milk for commercial use only; milk consumed on farms and milk fed not included. 3/ Excludes milk fed to livestock. 4/ Years ending June 30.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other U. S. representatives abroad, and other information.

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FD 15-59
September 28, 1959

WORLD TRADE IN DAIRY PRODUCTS, 1957, 1958, AND INDICATIONS FOR 1959

Summary

World trade in dairy products in 1958 set a postwar record, mainly due to larger shipments of butter and cheese.

New Zealand, Australia, the Netherlands, and Denmark continued to be the major supplying countries. The United Kingdom was again the major importer. Takings in 1958 by West Germany, another big importer in postwar years, were down from 1957 except for cheese and nonfat dry milk.

The relative price instability of butter and cheese, which prevailed in 1957, continued through most of 1958. World butter prices reached a low in mid-1958, but with the gradual reduction of excessive stocks, prices began to recover some in the last quarter of that year.

World trade in dairy products in 1959 probably will be down some from the high level of 1958. Butter exports will be down slightly, as supplies are limited and prices are up sharply. Cheese exports will probably show a slight gain.

Exports of canned milk will continue their downtrend, mainly due to reduced shipments of evaporated milk by the United States. Condensed milk shipments may be up slightly, but the gain will not offset the decline in exports of evaporated milk. Trade in dry whole milk and in nonfat dry milk will continue its upward trend.

Butter

World exports of butter reached a postwar record of 1.2 billion pounds in 1958, an increase of about 5 percent over the high level of 1957. Generally, trade shifted back to the large exporters, as the first-ranking supplier (New Zealand) and the fourth-ranking supplier (the Netherlands) increased exports 21 and 22 percent, respectively. Exports from Denmark and Australia, the other large exporters, were down only slightly. However, combined shipments from 6 of the minor supplying countries, Austria, Finland, France, Ireland, Norway, and Sweden were down 15 percent.

U. S. exports were up sharply in 1958, mostly due to increased foreign currency sales under Public Law 480, which accounted for 83 percent of the U. S. total. The major markets for U. S. butter were Asiatic countries.

The world butter market became more concentrated in 1958, as the United Kingdom received 80 percent of the total, compared with 73 percent in 1957. The U. K. increase came from New Zealand, the Netherlands, and Denmark. West Germany, the second largest importer in 1957, increased domestic production considerably, and sharply reduced its imports in 1958, especially from Denmark and the Netherlands. Recorded imports to Eastern Europe were about double those of 1957, with shipments to the U.S.S.R. accounting for the increase. Denmark and Finland exported 15 and 14 million pounds, respectively, to the Soviet Union in 1958.

Indications are that exports of butter in 1959 will be down slightly as supplies are limited, especially in Western Europe. Shipments from this area will be down, as well as from the United States. Inventories are low and prices sharply higher. The only country that probably will show a significant increase will be Australia, with New Zealand shipments up slightly.

Cheese

Exports in 1958 were only slightly (1 percent) greater than in 1957, and the traditional large markets of Western Europe again received about 75 percent of total exports. All major supplying countries increased their exports, but the greatest increase was from the Netherlands. An increase of nearly 27 million pounds reestablished that country as first in volume, with exports of 215 million pounds. Denmark showed a further sharp increase, 17 percent over 1957, to total 161 million pounds. New Zealand, the Number 2 supplier in 1958, increased exports by 3 percent to reach a total of 200 million pounds.

Exports in 1958 to the United Kingdom, the principal cheese market, were down from 1957, mainly because of reduced shipments by Australia. Increased exports to West Germany, mainly from the Netherlands and Denmark, made the West German market almost as large as the U. K. market in 1958. Italy's exports, in 1958 as in 1957, substantially equalled its imports.

Cheese exports will be up again slightly in 1959, with the Netherlands showing another increase. Australian and Danish shipments will also be up some; however, New Zealand exports will probably be down slightly. Total exports from the minor suppliers - mainly France, Switzerland, Norway, and Finland - probably will be up slightly.

Dry Whole Milk

World trade in dry whole milk in 1958 was down 2 percent from the 208 million pounds of 1957. Denmark was the only major supplier to show a gain in 1958; its exports increased by about 7 percent to 57 million pounds. Shipments from the Netherlands and United States were down 3 and 30 percent, respectively, but the Netherlands remained the world's largest supplier. There were moderate increases in exports from the minor supplying countries - Canada, Australia, and New Zealand.

The continued high price of U. S. dry whole milk was the major factor in the 30-percent decline in U. S. exports. The decrease was mainly in the Venezuelan market, where takings of the U. S. product dropped 27 percent. However, Canada, Denmark, and the Netherlands increased shipments to this market. Denmark's exports in 1958 were more than double those in 1957. Venezuela received over 35 percent of total world exports in 1958, compared with 31 percent in 1957.

Exports to Western Europe declined slightly in 1958, with Belgian and West German takings down 20 percent. The United Kingdom received 20 million pounds in 1958, compared with 15 million in 1957.

World trade in dry whole milk in 1959 is expected to increase over 1958's, and may exceed that of 1957. Exports by principal suppliers to Venezuela in the first half of 1959 were appreciably greater than in the corresponding period of 1958. Shipments to other tropical markets and to Western European areas should also show some net gain.

Nonfat Dry Milk

World trade in nonfat dry milk continued to expand sharply in 1958. Commercial exports were 295 million pounds, up 24 percent from the 237 million in 1957.

The United States increased exports 80 percent to 103 million pounds and became the world's largest supplier. This was due mainly to increased shipments under Title I, Public Law 480. New Zealand, the second largest supplier, exported 80 million pounds in 1958, down 25 percent from 1957. Shipments from Australia and the Netherlands continued their downward trend. Exports from Canada increased sharply, but included heavy sales for animal feed to Denmark, and donations through UNICEF.

Western Europe and Asia were the principal markets for nonfat dry milk, with exports to these areas accounting for 79 percent of the total. The United Kingdom continued to be the principal world market as well as an important supplier. India remained the top-ranking importer in Asia, although its imports were down 46 percent under an austerity program. Israel and the Philippines, however, increased imports substantially, and total Asian imports were up 12 percent.

Nonfat dry milk trade in 1959 should show further increase. U. S. exports will be up considerably, augmented by increased sales under barter, under Title I, P. L. 480 agreements and for dollars. New Zealand and Australian exports should show a good recovery but there may be a decline in Europe's shipments in 1959.

Evaporated Whole Milk

World exports of evaporated whole milk in 1958 were down 10 percent from the high level of 1957. Shipments by the major suppliers, the Netherlands and United States, were down 3 and 22 percent, respectively. This decline was mainly due to decreased takings by the Philippines.

Total exports by the Netherlands were down only slightly as shipments to other importing countries increased. The Philippines took about three-fourths of U. S. exports in 1958, as in 1957. The only important supplying country to increase exports in 1958 was France - 18 million pounds, compared with 14 million in 1957.

Although the Philippines continued to be the major market, it accounted for only 26 percent of total exports in 1958, compared with 38 percent in 1957. There was a decline in exports to Cuba and Belgium. Africa became a more important outlet, increasing imports by 10 percent from 58 million pounds in 1957 to 64 million in 1958. Evaporated milk shipments to Mexico, Hong Kong, Malaya, and Thailand also increased.

Exports of evaporated milk will be down again in 1959. U. S. shipments, especially to the Philippines, are running substantially behind 1958. However, data for the first quarter of 1959 indicate that shipments by the Netherlands and France will be up in 1959.

Condensed Whole Milk

World exports of condensed (sweetened) whole milk totaled 555 million pounds in 1958, an increase of 6 percent over those of 1957.

The Netherlands, although showing only a slight increase, continued to be the major supplier, accounting for 48 percent of total exports. Australia became the second largest exporter, increasing exports by 40 percent to nearly 76 million pounds. Shipments by Denmark and France were also up from 1957, while exports from the United States, the United Kingdom, and New Zealand declined.

Asia, the major marketing area, again took about 70 percent of total exports. This area took 387 million pounds - up 6 percent from 1957. Malaya and Singapore imported 152 million pounds in 1958, compared with 131 million in 1957. Indochina and Thailand, other important markets in the Far East, also increased imports in 1958.

Despite early indications that shipments from major suppliers are running slightly behind comparable 1958, exports of condensed milk in 1959 probably will show a slight gain over 1958. Data for the first 6 months indicate that U. S. shipments were slightly larger; and production in the Netherlands was up sharply in the first half of 1959.

Table 1 - Butter 1/: Exports of major supplying countries by destination, 1957 and 1958 2/

Destination	Argentina		Australia		Denmark		France		Netherlands		New Zealand		Sweden		United States 3/		Other		Total	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Western Europe:																				
Belgium-Luxembourg	—	4/	—	—	1.6	0.2	5/	—	11.9	0.7	—	—	—	—	—	—	—	—	13.5	0.9
France	0.1	0.1	4/	—	0.3	0.2	—	—	0.3	0.7	—	—	—	—	—	—	0.7	—	1.4	1.0
Germany, West	—	—	3.1	3.5	33.1	6/ 7.2	2.6	0.9	18.1	2.7	3.1	—	21.2	1.1	—	—	20.9	1.3	102.1	16.7
Italy	0.4	1.0	2.6	—	2.6	3.1	5.7	7.3	11.2	13.3	2.6	2.4	1.4	3.7	—	—	9.6	8.6	36.1	39.4
Switzerland	—	—	5/	—	0.7	4/	1.9	0.2	—	—	—	—	4.1	—	1.0	—	7.4	—	15.1	0.2
United Kingdom	26.3	13.1	115.1	114.8	192.0	210.6	1.8	6.0	27.9	65.7	304.3	375.9	29.6	31.0	—	—	121.3	124.8	818.3	941.9
Others	—	0.1	0.2	—	—	1.6	—	—	1.4	0.3	—	—	—	—	—	—	1.6	—	3.2	2.0
Total	26.8	14.3	121.0	118.3	230.3	222.9	12.0	14.4	70.8	83.4	310.0	378.3	56.3	35.8	1.0	—	161.5	126.6	989.7	1,002.1
Eastern Europe:																				
Czechoslavakia	—	—	—	—	1.4	0.8	—	—	4/	—	—	—	—	—	—	—	—	—	1.4	0.8
Germany, East	—	—	—	—	3.4	—	—	—	4/	—	—	—	1.0	0.4	—	—	—	—	4.4	0.4
Others	—	—	—	—	7/ 6.6	7/ 15.4	—	—	—	—	—	—	8/ 4.9	7/ 4.4	—	—	—	7/ 14.1	11.5	33.9
Total	—	—	—	—	11.4	16.2	—	—	—	—	—	—	5.9	4.8	—	—	—	14.1	17.3	35.1
North America:																				
British West Indies	—	—	0.7	0.1	—	—	—	—	—	—	4.1	0.8	—	—	0.1	—	1.6	1.8	6.5	2.7
Cuba	—	—	—	—	—	—	—	—	—	0.1	—	—	—	—	1.1	0.6	0.1	—	1.2	0.7
Netherlands W. Indies	—	4/	0.2	0.2	—	—	—	—	0.3	0.3	0.3	0.5	—	—	0.1	—	0.2	—	1.1	1.0
Panama	—	—	5/	0.1	—	0.1	—	—	—	—	1.9	1.8	—	—	0.3	—	—	—	2.2	2.0
United States	—	4/	5/	4/	9/ 2.5	0.2	—	—	—	4/	2.2	1.3	—	0.2	—	—	—	—	4.7	1.7
Other	0.1	—	0.1	0.3	1.2	—	—	—	0.6	0.2	0.5	5.6	—	—	0.2	0.4	—	—	2.7	6.5
Total	0.1	—	1.0	0.7	3.7	0.3	—	—	0.9	0.6	9.0	10.0	—	0.2	1.8	1.0	1.9	1.8	18.4	14.6
South America:																				
Peru	2.9	1.8	0.2	0.2	0.9	1.7	—	—	—	0.2	0.1	0.5	0.1	0.1	0.4	0.3	0.1	—	4.7	4.8
Venezuela	—	—	—	—	—	—	—	—	—	0.3	—	—	—	—	4/	—	—	—	—	0.3
Other	2.2	0.1	0.1	0.8	—	—	—	0.4	0.5	1.0	0.7	0.2	—	—	4/	3.9	—	—	2.5	6.4
Total	5.1	1.9	0.3	1.0	0.9	1.7	—	0.4	0.5	1.5	0.8	0.7	0.1	0.1	0.4	4.2	0.1	—	8.2	11.5
Asia:																				
Israel	—	—	5/	—	0.3	0.1	—	—	—	—	—	—	—	—	0.7	16.7	—	—	1.0	16.8
Lebanon	—	—	5/	—	1.1	1.7	—	—	0.4	0.5	—	—	—	—	—	—	—	—	1.5	2.2
Ceylon	—	—	2.2	3.0	—	—	—	—	—	0.4	0.2	—	—	—	—	—	—	—	2.4	3.4
Hong Kong	—	—	1.7	1.8	—	—	—	—	—	4/	0.3	1.2	—	—	—	0.2	—	—	2.0	3.2
India	—	—	0.1	4/	—	—	—	—	—	—	0.2	4/	—	—	—	—	—	—	0.3	—
Malaya & Singapore	—	—	5.6	7.0	—	0.1	—	—	0.1	0.1	0.5	0.6	—	—	—	—	—	—	6.2	7.8
Philippines	—	—	1.9	0.3	—	0.2	—	—	—	—	2.2	0.4	—	—	0.1	—	—	—	4.2	0.9
Other	—	—	2.5	5.5	—	1.8	—	—	0.1	0.2	4/	1.5	—	0.1	3.1	10.5	—	—	5.7	19.6
Total	—	—	14.0	17.6	1.4	3.9	—	—	0.6	1.2	3.4	3.7	—	0.1	3.9	27.4	—	—	23.3	53.9
Africa:																				
Algeria	0.7	0.9	—	—	3.0	1.6	4.3	8.3	3.6	6.3	—	—	0.6	1.2	—	—	1.3	0.4	13.5	18.7
Belgian Congo	—	—	—	—	1.3	1.2	—	—	0.6	0.4	0.6	—	—	—	—	—	0.5	—	3.0	1.6
French W. Africa	—	4/	—	—	0.4	—	1.3	1.6	0.6	0.7	—	—	—	4/	—	—	—	—	2.3	2.3
Morocco	0.1	4/	5/	—	2.7	2.3	1.5	0.3	1.2	2.3	—	—	—	2.0	—	0.1	0.4	0.2	5.9	7.2
Tunisia	0.2	—	5/	—	10/	10/	0.6	0.5	0.2	0.4	—	—	—	4/	—	—	—	—	1.0	0.9
Other	0.4	—	1.5	0.5	—	0.5	2.6	1.0	0.6	0.9	0.1	0.6	1.3	0.1	0.1	—	—	—	6.6	3.6
Total	1.4	0.9	1.5	0.5	7.4	5.6	10.3	11.7	6.8	11.0	0.7	0.6	1.9	3.3	0.1	0.1	2.2	0.6	32.3	34.3
Oceania	—	—	1.5	—	—	—	—	—	—	—	0.7	—	—	—	4/	—	—	—	2.2	—
All others	—	0.3	1.4	1.1	2.7	1.2	—	1.0	0.3	—	1.3	0.2	1.3	—	0.1	0.1	18.6	21.8	25.7	25.8
Grand Total	33.4	17.4	140.7	139.2	257.8	251.8	22.3	27.5	79.9	97.7	325.9	393.6	65.5	44.3	7.3	32.8	184.3	173.0	1,117.1	1,177.3

1/ Includes butter equivalent of anhydrous butterfat and ghee. 2/ Preliminary. 3/ Exclusive of donations under Public Law 480. 4/ Less than 50,000 pounds. 5/ If any, under others. 6/ 1.8 million pounds to U. S. Armed Forces. 7/ All to U.S.S.R. 8/ All to Poland. 9/ To U. S. Armed Forces overseas. 10/ Included with Algeria.

Table 2 - Cheese: Exports of major supplying countries, by destination, 1957 and 1958 1/

Destination	Australia		Denmark		Finland		France		Italy	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Western Europe:										
Austria	--	--	0.3	0.6	1.1	3.7	--	--	0.4	0.4
Belgium-Luxembourg	--	--	2.1	2.9	3.8	3.8	4.0	4.5	0.5	1.3
France	--	--	0.8	0.9	3/	2.0	--	--	5.5	6.1
Germany, West	--	0.3	77.6	89.0	5.7	7.8	1.8	0.7	1.5	0.9
Greece	3/	--	--	0.2	0.3	0.2	--	--	0.7	1.1
Italy	--	--	6.3	10.9	1.2	2.0	1.7	1.0	--	--
Spain	--	--	--	0.2	--	--	--	--	--	--
Sweden	--	--	6.0	5.9	0.4	0.6	--	--	0.1	0.2
Switzerland	--	--	--	0.6	--	--	0.8	1.3	8.2	7.6
United Kingdom	24.2	13.2	23.7	22.3	0.2	0.1	2.0	2.2	2.5	2.4
Other	--	--	0.5	0.3	0.3	--	0.1	0.1	1.1	0.2
Total	24.2	13.5	117.3	133.8	13.0	20.2	10.4	9.8	20.5	20.2
Eastern Europe:										
Czechoslovakia	--	--	0.4	0.3	2.2	0.8	--	--	--	--
Germany, East	--	--	1.6	6.0	8.6	5.0	--	--	--	--
Other	--	--	--	--	1.1	--	--	--	--	--
Total	--	--	2.0	6.3	11.9	5.8	--	--	--	--
North America:										
British West Indies	0.1	3/	--	--	--	--	--	--	--	--
Canada	--	--	2.0	2.7	--	0.4	0.5	0.5	1.4	2.5
Cuba	--	--	--	--	--	--	--	--	3/	--
Mexico	--	--	0.1	0.1	--	--	--	--	3/	--
Netherlands W. Indies	--	--	--	--	--	--	--	--	--	--
United States	--	--	4/ 6.4	4/ 7.1	0.9	1.7	2.3	2.3	19.0	21.5
Other	3/	0.3	--	--	--	--	--	0.5	3/	0.1
Total	0.1	0.3	8.5	9.9	0.9	2.1	2.8	3.3	20.4	24.1
South America:										
Peru	3/	--	1.0	0.5	--	--	--	--	3/	--
Venezuela	--	--	3.0	5.0	--	--	--	--	1.4	2.5
Other	--	--	--	--	--	--	--	--	3/	--
Total	--	--	4.0	5.5	--	--	--	--	1.4	2.5
Asia:										
Israel	--	--	--	--	--	--	--	--	--	--
Japan	0.1	0.2	--	0.2	--	--	--	--	3/	0.1
Lebanon	0.1	0.2	--	0.2	--	--	--	--	0.4	0.3
Malaya & Singapore	0.8	0.7	--	--	--	--	--	--	--	--
Philippines	2.4	0.2	--	--	--	--	--	--	--	3/
Turkey	--	--	--	--	--	--	--	--	--	--
Other	1.4	3.9	--	0.3	--	0.1	--	--	0.4	1.0
Total	4.8	5.2	--	0.7	--	0.1	--	--	0.8	1.4
Africa:										
Algeria	--	--	1.7	1.4	1.4	2.3	29.4	34.1	0.1	0.2
Belgian Congo	0.1	0.1	--	0.1	--	--	--	--	0.1	0.1
Egypt	--	3/	--	--	0.7	0.7	--	--	0.1	3/
French West Africa	3/	--	--	0.1	--	--	2.7	2.7	3/	--
Morocco	--	--	1.2	0.7	0.4	1.4	5.5	4.2	0.1	0.1
Tunisia	--	--	5/	0.1	0.3	--	2.6	2.3	0.1	0.1
Other	1.6	0.3	0.5	0.1	--	0.1	1.6	0.8	0.6	0.7
Total	1.7	0.4	3.4	2.5	2.8	4.5	41.8	44.1	1.1	1.2
Oceania	0.3	3/	0.3	0.5	--	--	--	--	0.1	0.6
All Others	0.8	0.3	2.8	1.9	0.5	0.1	2.5	3.7	5.2	0.5
Grand Total	31.9	19.7	138.3	161.1	29.1	32.8	57.5	60.9	49.5	50.5

1/ Preliminary. 2/ Exclusive of donations under Public Law 480. 3/ Less than 50,000 - included in others.

Table 2 - Cheese: Exports of major supplying countries, by destination, 1957 and 1958 1/--cont.

Netherlands		New Zealand		Switzerland		United States 2/		Others		Total	
1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
0.3	0.4	--	--	0.1	0.3	0.1	--	1.5	--	3.8	5.4
53.4	53.6	--	--	4.6	5.4	2.1	0.8	8.0	1.7	78.5	74.0
4.5	4.4	--	--	10.5	13.0	3/	--	2.3	--	23.6	26.4
81.7	98.6	0.8	2.9	4.4	8.2	0.5	--	8.2	5.0	182.2	213.4
0.4	0.3	--	--	0.1	0.1	0.7	0.1	7.9	--	10.1	2.0
1.8	2.4	--	--	15.4	16.9	1.6	3/	18.1	17.5	46.1	50.7
0.6	--	--	--	0.1	0.1	--	--	--	--	0.7	0.3
3.6	5.5	--	--	0.5	0.6	--	--	0.9	6.0	11.5	18.8
1.3	2.2	--	--	--	--	--	--	0.9	--	11.2	11.7
13.4	19.6	187.0	187.2	1.8	1.6	3/	--	21.3	11.2	276.1	259.8
0.4	0.3	--	--	0.6	0.7	3/	0.1	17.5	0.7	20.5	2.4
161.4	187.3	187.8	190.1	38.1	46.9	5.0	1.0	86.6	42.1	664.3	664.9
--	--	--	--	--	0.1	--	--	--	--	2.6	1.2
3/	--	--	--	--	--	--	--	--	1.3	10.2	12.3
--	--	--	--	--	--	--	--	--	--	1.1	--
--	--	--	--	--	0.1	--	--	--	1.3	13.9	13.5
1.0	--	3.3	4.1	3/	--	0.1	0.4	--	--	4.5	4.5
1.1	1.6	3/	--	2.0	2.1	0.9	0.9	1.5	0.2	9.4	10.9
1.3	1.4	--	--	0.1	0.1	0.5	0.7	0.1	--	2.0	2.2
0.4	0.4	--	--	0.1	0.1	0.8	0.8	0.2	--	1.6	1.4
1.2	1.3	--	--	3/	--	0.1	0.1	0.2	--	1.5	1.4
4.3	1.5	1.5	3.6	10.8	7.0	--	--	5.7	4.3	50.9	49.0
0.5	2.9	0.3	--	3/	0.1	1.0	1.4	--	0.2	1.8	5.5
9.8	9.1	5.1	7.7	13.0	9.4	3.4	4.3	7.7	4.7	71.7	74.9
0.3	0.2	--	--	0.1	--	0.1	0.1	0.7	0.3	2.2	1.1
4.5	4.6	--	--	0.2	0.2	2.2	2.7	4.2	3.1	15.5	18.1
0.8	1.0	0.4	0.5	3/	--	--	--	--	0.1	1.2	1.6
5.6	5.8	0.4	0.5	--	0.2	2.3	2.8	4.9	3.5	18.9	20.8
--	--	--	--	3/	--	3.5	6.4	0.1	--	3.6	6.4
1.0	0.9	--	0.1	3/	--	--	0.1	0.3	--	1.4	1.6
1.0	1.5	--	--	0.1	3/	--	--	5.0	0.1	6.6	2.3
0.2	0.2	3/	--	3/	--	--	--	--	--	1.0	0.9
0.7	0.3	0.1	3/	3/	--	0.1	0.4	--	--	3.3	0.9
--	--	--	--	3/	--	--	5.0	--	--	--	5.0
2.3	1.7	3/	0.2	0.1	0.2	1.0	0.2	--	--	5.2	7.6
5.2	4.6	0.1	0.3	0.2	0.2	4.6	12.1	5.4	0.1	21.1	24.6
1.8	2.3	--	--	0.1	0.1	--	--	0.1	0.7	34.6	41.1
0.6	0.7	--	--	0.3	0.3	--	--	1.4	0.5	2.5	1.8
0.2	--	--	--	3/	--	--	--	1.9	--	2.9	0.7
0.1	0.1	--	--	0.1	3/	--	--	0.1	--	3.0	2.9
1.6	2.2	--	--	0.1	3/	3/	--	1.3	--	10.2	8.6
0.3	0.4	--	--	--	--	--	1.6	--	--	3.3	4.5
2.0	0.4	0.5	1.0	0.5	0.3	--	--	0.1	0.1	7.4	3.8
6.6	6.1	0.5	1.0	1.1	0.7	3/	1.6	4.9	1.3	63.9	63.4
3/	--	0.5	0.5	0.1	0.1	--	--	--	--	1.3	1.7
--	2.2	--	0.2	0.2	4.0	1.5	0.1	0.2	0.8	13.7	13.8
188.6	215.1	194.4	200.3	53.0	61.6	16.8	21.9	109.7	53.8	868.8	877.7

4/ Includes shipments to U. S. Armed Forces overseas. 5/ Included with Algeria.

Table 3 - Dry Whole Milk: Exports of major supplying countries by destination 1957 and 1958 1/

Destination	Australia		Canada		Denmark		Netherlands		United States		Others 2/		Total	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Western Europe:														
Belgium-Luxembourg	--	--	--	3/	--	3/	13.7	9.9	3/	3/	--	--	13.7	9.9
France	--	--	--	--	--	0.5	0.1	0.1	--	3/	--	--	0.1	0.6
Germany, Fed. Republic of	--	--	--	--	6.9	4.3	9.6	7.1	--	3/	1.4	4.0	17.9	15.4
Greece	--	--	--	--	--	0.1	1.6	1.8	--	3/	--	--	1.6	1.9
Switzerland	--	--	--	--	1.1	1.1	1.5	0.4	--	--	1.4	1.7	4.0	3.2
United Kingdom	1.4	2.1	--	--	1.4	3.7	3.4	5.4	--	--	4/ 8.3	4/ 8.8	14.5	20.0
Others	--	--	--	--	0.6	0.5	--	0.2	--	--	0.4	0.5	1.0	1.2
Total	1.4	2.1	--	3/	10.0	10.2	29.9	24.9	--	3/	10.1	10.3	51.4	47.5
Eastern Europe	--	--	--	--	0.4	0.4	1.2	0.2	--	--	--	--	1.6	0.6
North America:														
British West Indies	--	0.1	1.6	--	0.2	4.4	1.5	1.5	0.1	0.1	0.2	0.1	3.6	6.2
Costa Rica	--	--	--	0.2	1.0	1.8	0.8	0.9	3/	3/	--	--	1.8	2.9
Dominican Republic	--	--	0.1	--	0.7	1.0	1.1	1.3	3/	3/	--	--	1.9	2.3
El Salvador	--	--	--	3/	0.6	1.1	2.4	2.5	0.1	0.1	--	--	3.1	3.7
Guatemala	--	--	0.7	0.3	0.5	1.0	0.5	0.5	0.1	0.1	--	--	1.8	1.9
Honduras	--	--	--	3/	0.4	0.6	0.1	0.3	0.1	3/	--	--	0.6	0.9
Netherlands West Indies	--	--	--	3/	--	3/	1.4	1.7	0.1	0.1	--	--	1.5	1.8
Others	--	--	--	0.1	0.8	0.7	--	1.5	0.8	0.5	0.1	0.1	1.7	2.9
Total	--	0.1	2.4	0.6	4.2	10.6	7.8	10.2	1.3	0.9	0.3	0.2	16.0	22.6
South America:														
Brazil	--	--	--	--	10.6	0.3	--	--	--	--	--	--	10.6	0.3
Peru	--	--	0.2	0.2	0.4	0.5	--	--	0.2	0.1	--	--	0.8	0.8
Venezuela	--	--	13.2	16.6	8.3	17.5	10.6	14.2	33.3	24.0	--	--	65.4	72.3
Others	--	--	--	--	0.6	0.3	0.9	1.1	0.9	0.4	--	--	2.4	1.8
Total	--	--	13.4	16.8	19.9	18.6	11.5	15.3	34.4	24.5	--	3/	72.2	75.2
Asia:														
Aden	0.1	0.1	--	--	0.6	0.6	0.3	--	--	--	--	--	1.0	0.7
Ceylon	2.7	3.5	--	--	0.1	0.6	--	--	3/	3/	0.1	--	2.9	4.1
Hong Kong	0.5	0.4	--	3/	0.6	0.8	0.3	0.4	3/	3/	0.1	0.1	1.5	1.7
India	1.0	0.4	--	--	0.4	0.4	0.3	0.2	0.1	3/	0.1	3/	1.9	1.0
Indonesia	1.4	0.8	--	--	1.1	1.9	3.1	0.9	--	--	--	--	5.6	3.6
Lebanon	0.1	0.2	--	--	0.2	0.5	0.8	0.9	3/	3/	--	--	1.1	1.6
Malaya & Singapore	3.2	3.6	--	--	5.1	4.6	0.9	1.0	3/	3/	1.0	1.0	10.2	10.2
Philippines	--	3/	--	--	--	0.2	0.3	--	0.8	1.0	--	--	1.1	1.2
Saudi Arabia	--	--	--	--	0.2	0.3	3/	2.0	3/	3/	--	--	0.2	2.3
Taiwan	3/	0.1	--	3/	--	0.1	--	0.9	1.6	0.2	--	--	1.6	1.3
Thailand	0.3	0.4	--	--	0.8	0.8	--	0.6	0.1	3/	--	3/	1.2	1.8
Others	0.5	0.6	--	0.1	1.2	0.8	3.7	0.2	1.3	1.2	0.1	0.1	6.8	3.0
Total	9.8	10.1	--	0.1	10.3	11.6	9.7	7.1	3.9	2.4	1.4	1.2	35.1	32.5
Africa:														
Belgian Congo	--	--	--	--	2.0	2.6	1.3	1.3	0.6	3/	--	--	3.9	3.9
French Morocco	--	--	--	--	0.2	0.4	0.7	0.6	--	--	--	--	0.9	1.0
Rhodesia & Nyasaland	0.6	0.7	--	--	--	0.2	0.4	0.3	--	--	0.5	0.5	1.5	1.7
Sudan	--	--	--	--	0.2	0.2	0.8	--	--	--	--	--	1.0	0.2
Others	0.7	1.1	--	--	0.9	2.4	2.1	3.4	3/	0.1	0.2	0.4	3.9	7.4
Total	1.3	1.8	--	3/	3.3	5.8	5.3	5.6	0.6	0.1	0.7	0.9	11.2	14.2
Oceania	1.3	0.9	--	--	--	--	--	--	0.1	0.1	0.7	0.7	2.1	1.7
Others, n.e.a.	0.4	0.4	0.6	--	5.2	--	2.8	2.7	--	--	1.5	1.1	10,5	4.2
Grand Total	14.2	15.4	16.4	17.5	53.3	57.2	68.2	66.0	40.3	28.0	16.1	20.1	208.5	204.2

1/ Preliminary. 2/ Exports from other countries which can be identified as dry whole milk. 3/ Less than 50,000 pounds. 4/ From New Zealand.

Table 4 - Nonfat dry milk: Exports of major supplying countries, 1957 and 1958 1/

Destinations	Australia		Netherlands		New Zealand		United Kingdom		United States 2/		Others		Total	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Western Europe:														
Austria	--	--	0.9	--	--	--	0.3	--	--	--	--	--	1.2	--
Belgium-Luxembourg	--	--	1.7	0.6	--	--	--	--	3/	--	--	2.7	1.7	3.3
Denmark	--	0.3	--	--	0.8	--	10.9	9.6	--	--	--	4/ 29.3	11.7	39.2
Germany, West	--	--	0.5	0.1	--	--	0.8	2.7	0.7	1.2	0.1	0.4	2.1	4.4
Greece	--	--	0.2	0.5	--	--	--	--	--	--	3/	--	0.2	0.5
Netherlands	5.0	0.6	--	--	3.2	2.0	2.3	1.1	--	--	--	--	10.5	3.7
United Kingdom	9.5	25.3	--	1.4	71.6	58.8	--	--	0.1	--	--	--	81.2	85.5
Others	0.1	--	--	0.5	--	--	0.4	0.1	--	5/ 11.9	0.2	0.6	0.7	13.1
Total	14.6	26.2	3.3	3.1	75.6	60.8	14.7	13.5	0.8	13.1	0.3	33.0	109.3	149.7
North America:														
British West Indies	0.2	3/	--	--	4.4	0.2	0.2	3/	1.6	0.3	0.2	0.1	6.6	0.6
Canada	0.7	--	--	--	4.6	--	0.9	--	1.3	0.1	--	--	7.5	0.1
Mexico	--	--	--	--	--	--	--	--	15.1	18.6	--	3/	15.1	18.6
United States	1.1	--	--	--	0.4	1.3	--	--	--	--	0.1	3/	1.6	1.3
Others	--	0.6	0.1	0.1	--	4.4	--	--	2.1	4.0	3/	0.5	2.2	9.6
Total	2.0	0.6	0.1	0.1	9.4	5.9	1.1	--	20.1	23.0	0.3	0.6	33.0	30.2
South America:														
Chile	--	--	1.1	--	--	--	--	--	0.9	3/	--	0.4	2.0	0.4
Peru	--	--	--	--	0.2	0.4	--	--	1.8	3.6	--	1.5	2.0	5.5
Venezuela	--	--	--	--	--	--	--	--	2.4	0.6	0.2	2.3	2.6	2.9
Others	--	--	--	--	--	--	--	--	0.7	2.8	3/	7.1	0.7	9.9
Total	--	--	1.1	--	0.2	0.4	--	--	5.8	7.0	0.2	11.3	7.3	18.7
Asia:														
Ceylon	1.0	2.1	--	--	0.1	0.4	0.3	0.8	--	--	--	3/	1.4	3.3
Hong Kong	3/	--	--	--	--	3/	0.1	0.2	0.6	0.1	--	3/	0.7	0.3
India	17.1	2.9	3.4	3/	15.5	6.2	1.3	1.7	11.0	15.0	3/	0.6	48.3	26.4
Israel	--	--	--	--	--	--	--	--	2.7	20.0	--	--	2.7	20.0
Japan	--	1.5	--	--	3.8	2.5	--	--	--	--	--	0.3	3.8	4.3
Malaya & Singapore	0.3	0.8	--	--	0.3	0.4	0.4	0.5	1.2	0.9	--	--	2.2	2.6
Philippines	0.2	0.2	--	--	--	0.3	--	--	11.6	16.3	--	--	11.8	16.8
Others	1.2	0.9	1.0	1.6	0.8	1.6	0.2	0.3	0.3	5.6	0.6	0.4	4.1	10.4
Total	19.8	8.4	4.4	1.6	20.5	11.4	2.3	3.5	27.4	57.9	0.6	1.3	75.0	84.1
Africa:														
Libya	--	--	--	--	--	--	--	--	1.0	--	--	--	1.0	--
Mauritus	0.5	3/	--	--	0.5	1.0	--	0.2	--	--	--	--	1.0	1.2
Rhodesia & Nyasaland	0.5	0.5	--	--	0.2	0.1	0.4	0.2	--	3/	--	3/	1.1	0.8
Others	0.1	0.5	1.1	1.4	0.4	0.7	1.3	1.7	1.7	2.1	0.1	0.2	4.7	6.6
Total	1.1	1.0	1.1	1.4	1.1	1.8	1.7	2.1	2.7	2.1	0.1	0.2	7.8	8.6
Oceania	0.5	3/	--	--	0.3	--	--	--	--	--	--	--	0.8	--
Others	0.9	--	1.1	1.9	0.2	0.1	0.9	1.7	0.5	--	0.4	0.1	4.0	3.8
Grand Total	38.9	36.2	11.1	8.1	107.3	80.4	20.7	20.8	57.3	103.1	1.9	6/46.5	237.2	295.1

1/ Preliminary. 2/ Exclusive of donations under Public Law 480, concessional sales for special uses. 3/ Less than 50,000 pounds - included in other. 4/ Primarily for animal feed. 5/ Includes 10.9 million to Poland. 6/ Includes milk donated by Canada to UNICEF.

Table 5 - Evaporated whole milk: Exports of major supplying countries by destination, 1957 and 1958 1/

Destination	Denmark		France		Netherlands		United Kingdom		United States		Others		Total	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounda	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Western Europe:														
Belgium-Luxembourg	--	--	--	--	11.7	9.8	--	--	--	--	--	--	11.7	9.8
Cyptus	--	--	--	--	0.4	1.0	--	2.1	--	--	--	--	0.4	3.1
France	0.2	--	--	--	1.3	1.0	--	--	--	--	--	--	1.5	1.0
Germany, Fed. Rep. of	2.9	2.4	--	--	2.2	2.5	3.4	2.6	--	--	--	--	8.5	7.5
Gibralter	--	--	--	--	0.5	--	1.3	1.5	--	--	--	--	1.8	1.5
Greece	--	--	--	--	8.6	9.0	--	--	5.9	6.6	--	--	14.5	15.6
Italy	0.1	--	--	--	1.4	1.7	--	--	--	--	0.1	--	1.6	1.7
Malta	--	--	--	--	--	4.4	14.5	7.7	--	--	--	--	14.5	12.1
Switzerland	--	--	--	--	3.0	4.9	0.5	0.1	--	--	--	--	3.5	5.0
United Kingdom	0.3	0.6	--	--	0.4	5.1	--	--	--	--	--	--	0.7	5.7
Other	0.3	0.7	--	--	--	0.6	2.6	0.4	--	2/	--	--	2.9	1.7
Total	3.8	3.7	--	--	29.5	40.0	22.3	14.4	5.9	6.6	0.1	--	61.6	64.7
Eastern Europe	0.3	--	--	--	--	--	--	--	--	--	--	--	0.3	--
North America:														
Bermuda	--	--	--	--	2.5	2.4	--	0.1	--	--	2/	--	2.5	2.5
British West Indies	--	--	--	--	4.2	5.5	1.4	0.6	0.2	0.1	2.7	3.4	8.5	9.6
Costa Rica	--	--	--	--	0.4	--	--	0.3	0.1	0.2	0.3	--	0.8	0.5
Cuba	--	--	--	--	1.0	4.6	--	--	14.1	8.3	--	--	15.1	12.9
Haiti	--	--	--	--	1.8	1.8	--	1.2	0.1	--	0.6	--	2.5	3.0
Mexico	--	--	--	--	--	--	--	--	13.9	16.0	--	--	13.9	16.0
Netherlands Antilles	--	--	--	--	5.4	6.5	--	--	--	--	2/	--	5.4	6.5
Panama Canal Zone	--	--	--	--	--	--	--	--	1.7	0.6	--	--	1.7	0.6
Other	--	0.1	0.3	0.3	2.1	2.5	--	--	0.7	1.9	0.6	0.1	3.7	4.9
Total	--	0.1	0.3	0.3	17.4	23.3	1.4	2.2	30.8	27.1	4.2	3.5	54.1	56.5
South America:														
British Guiana	--	--	--	--	4.8	4.9	0.8	1.1	--	--	0.1	0.4	5.7	6.4
Peru	0.1	--	--	--	17.8	8.7	0.6	0.3	1.3	0.2	--	--	19.8	9.2
Venezuela	0.1	--	--	--	0.6	0.7	--	--	0.6	0.3	0.2	0.1	1.5	1.1
Other	--	0.3	--	--	0.2	0.8	0.1	0.1	2/	2/	--	--	0.3	1.2
Total	0.2	0.3	--	--	23.4	15.1	1.5	1.5	1.9	0.5	0.3	0.5	27.3	17.9
Asia:														
Aden	0.1	--	--	--	2.4	3.5	--	0.1	--	--	--	--	2.5	3.6
Bahrein	--	--	--	--	2.2	4.3	--	--	--	--	--	--	2.2	4.3
Burma	--	0.5	--	--	2.2	7.3	2.6	--	--	--	--	--	4.8	7.8
Hong Kong	0.1	--	--	--	9.2	13.4	0.2	0.3	--	--	0.1	0.7	9.6	14.4
India	2.0	1.9	--	--	0.2	1.9	0.1	5.5	2/	2/	3.8	--	6.1	9.3
Indonesia	--	0.3	--	--	3.3	0.9	--	--	--	--	0.1	--	3.4	1.2
Kuweit	--	--	--	--	2.5	2.8	--	--	2/	2/	--	--	2.5	2.8
Malaya & Singapore	--	--	--	--	1.8	2.5	4.0	5.3	2/	0.2	0.8	1.5	6.6	9.5
Philippines, Rep. of	0.4	0.4	--	--	43.4	10.0	0.9	--	123.0	93.0	--	--	167.7	103.5
Saudi Arabia	0.4	--	--	--	3.4	4.5	--	--	0.1	0.1	--	--	3.9	4.6
Taiwan	--	--	--	--	--	--	--	--	1.1	2/	--	--	1.1	2/
Thailand	--	2.6	--	--	8.3	11.4	0.1	--	2/	2/	0.1	--	8.5	14.0
Other	2.6	0.4	--	--	1.0	0.8	0.5	0.9	0.8	0.6	0.1	--	5.0	2.7
Total	5.6	6.1	--	--	79.9	63.3	8.4	12.1	125.0	93.9	5.0	2.2	223.9	177.6
Africa:														
Algeria	--	--	7.7	8.8	3.9	6.4	--	--	--	--	--	--	11.6	15.2
Belgian Congo	--	--	--	--	1.1	0.8	--	--	--	--	--	--	1.1	0.8
Fr. West & Equat. Africa	0.3	--	4.2	6.7	2.6	1.7	--	--	--	--	--	--	7.1	8.4
Ghana	--	--	--	--	10.0	10.3	0.3	1.0	--	--	--	--	10.3	11.3
Liberia	--	--	--	--	1.0	1.1	--	--	--	--	--	--	1.0	1.1
Libya	--	--	--	--	1.5	1.8	0.6	0.6	--	--	--	--	2.1	2.4
Morocco	--	--	--	--	7.7	5.8	--	--	--	--	--	--	7.7	5.8
Nigeria	--	--	--	--	9.0	10.0	--	0.3	--	--	--	--	9.0	10.3
Sierra Leone	--	--	--	--	2.0	2.6	--	--	--	--	--	--	2.0	2.6
Tanganyika	--	--	--	--	1.5	1.5	--	0.3	--	--	--	0.1	1.5	1.9
Tunisia	--	--	0.4	0.6	0.6	--	--	--	--	--	--	--	1.0	0.6
Other	0.2	0.4	0.4	0.5	2.2	2.4	0.7	--	2/	0.1	0.2	0.3	3.7	3.7
Total	0.5	0.4	12.7	16.6	43.1	44.4	1.6	2.2	2/	0.1	0.2	0.4	58.1	64.1
Oceania	--	--	--	--	1.5	1.8	--	--	0.4	0.2	1.1	1.3	3.0	3.3
Others, n.e.s.	1.0	0.2	1.0	0.8	2.1	2.5	3.8	5.4	0.4	0.4	--	1.0	8.3	10.3
Grand Total	11.4	10.8	14.0	17.7	196.9	190.4	39.0	37.8	164.4	128.8	10.9	8.9	436.6	394.4

1/ Preliminary. 2/ Less than 50,000 pounds.

Table 6 - Condensed whole milk: Exports of major supplying countries, by destination, 1957 and 1958 1/

Destination	Australia		Denmark		France		Netherlands		United Kingdom		United States		Others		Total	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Western Europe:																
Belgium-Luxembourg	--	--	--	--	--	--	1.6	2.2	--	--	0.1	0.3	--	--	1.7	2.5
France	--	--	1.1	1.1	--	--	0.6	0.6	--	--	--	--	--	--	1.7	1.7
Gibralter	--	--	--	--	--	--	1.1	1.1	--	--	--	--	--	--	1.1	1.1
Greece	--	--	--	--	--	--	15.1	16.3	--	--	--	--	--	--	15.1	16.3
Italy	--	--	--	--	--	--	0.3	0.8	--	--	--	--	--	--	0.3	0.8
Switzerland	--	--	1.6	1.1	--	--	2.8	2.7	--	--	--	--	--	--	4.4	3.8
United Kingdom	--	--	3.4	4.4	--	--	0.5	1.3	--	--	--	--	--	--	3.9	5.7
Other	--	--	0.8	0.5	--	--	0.8	1.4	0.8	0.3	--	--	--	0.1	2.4	2.3
Total	--	--	6.9	7.1	--	--	22.8	26.4	0.8	0.3	0.1	0.3	--	0.1	30.6	34.2
North America:																
British Hondurse	--	--	--	--	--	--	1.3	1.1	1.2	1.6	--	--	--	--	2.5	2.7
British West Indies	1.9	0.7	0.4	0.2	--	--	12.0	14.7	4.1	3.3	--	--	0.3	--	18.4	18.9
Cuba	--	--	--	0.1	--	--	3.8	1.4	3.6	--	--	--	--	--	7.4	1.5
Dominican Republic	--	--	--	--	--	--	0.9	0.2	--	--	--	--	--	--	0.9	0.2
French West Indies	--	--	--	--	3.6	3.5	0.6	1.0	--	--	--	--	--	--	4.2	4.5
Others	--	--	0.4	1.2	--	--	2.1	1.8	3.4	0.8	--	0.1	--	--	5.9	3.7
Total	1.9	0.7	0.8	1.5	3.6	3.5	20.7	20.2	12.3	5.7	2/	0.1	0.3	--	39.6	31.7
South America:																
Bolivia	--	--	--	--	--	--	--	0.1	--	--	--	--	--	--	--	0.1
British Guiana	0.2	0.7	0.1	--	--	--	2.5	2.7	0.7	1.0	--	--	--	--	3.5	4.4
Peru	--	--	0.1	--	--	--	0.5	0.2	2/	--	--	--	--	--	0.6	0.2
Venezuela	--	--	0.3	0.5	--	--	3.1	3.6	--	--	2/	0.1	--	--	3.4	4.2
Others	--	--	0.1	0.2	--	--	0.7	0.7	--	--	--	--	--	--	0.8	0.9
Total	0.2	0.7	0.6	0.7	--	--	6.8	7.3	0.7	1.0	2/	0.1	--	--	8.3	9.8
Asia:																
Burma	0.6	--	15.2	21.8	--	--	15.8	10.6	--	--	5.3	--	--	--	36.9	32.4
Ceylon	0.4	0.4	0.6	5.6	--	--	13.0	12.9	--	--	--	--	--	--	14.0	18.9
Hong Kong	0.1	0.1	--	0.4	--	--	10.9	11.6	0.1	2/	0.1	--	--	--	11.2	12.1
India	0.2	0.1	6.2	0.3	--	--	0.9	0.2	2/	--	--	--	--	--	7.3	0.6
Indochina	--	0.7	--	1.1	--	1.1	6.2	4.7	--	--	28.2	33.9	0.3	0.1	34.7	41.6
Indonesia	2.1	1.8	8.9	2.9	--	--	15.4	3.3	--	--	--	--	--	--	26.4	8.0
Malaya & Singapore	38.6	55.6	13.0	14.2	--	--	34.9	42.4	39.3	33.3	--	--	5.5	6.2	131.3	151.7
Philippines	--	--	0.4	1.0	--	--	24.6	25.7	--	--	--	0.1	3.4	3.7	28.4	30.5
Taiwan	--	--	--	--	--	--	--	--	--	--	2/ 2.1	0.2	--	--	2.1	0.2
Thailand	0.2	1.0	8.6	9.0	--	--	45.8	53.1	--	--	1.8	0.2	--	3.1	56.4	66.4
Others	4.8	8.8	1.1	2.4	--	--	7.6	8.9	3.3	3.9	0.1	--	--	0.1	16.9	24.1
Total	47.0	68.5	54.0	58.7	--	1.1	175.1	173.4	42.7	37.2	37.6	34.4	9.2	13.2	365.6	386.5
Africa:																
Algeria	--	--	2.1	1.7	17.3	16.3	1.2	4.0	--	--	--	--	--	--	20.6	22.0
Belgian Congo	--	--	0.1	0.1	--	--	1.8	1.9	--	--	--	--	--	0.4	1.9	2.4
French Morocco	--	--	0.1	0.3	0.5	3.0	8.9	6.3	--	--	--	--	--	--	9.5	9.6
French West and Equatorial Africa	--	--	1.1	0.9	4.7	6.4	3.6	4.1	--	--	--	--	--	0.6	9.4	12.0
Ghana	--	--	--	--	--	--	1.4	1.2	--	--	--	--	--	0.1	1.4	1.3
Kenya - Uganda	--	--	--	--	--	--	1.4	1.2	--	--	--	--	--	--	1.4	1.2
Madagascar	--	--	--	--	4.3	4.3	2.4	1.8	--	--	--	--	--	--	6.7	6.1
Mauritius	1.3	1.9	--	--	--	--	--	--	--	--	--	--	--	--	1.3	1.9
Portuguese F. Africa	--	--	--	--	--	--	4.8	5.0	--	--	--	--	--	--	4.8	5.0
Reunion	--	--	--	--	1.6	1.9	0.3	0.4	--	--	--	--	--	--	1.9	2.3
Rhodesia & Nyasaland	1.1	0.9	--	--	--	--	1.5	1.2	1.6	1.9	--	--	--	--	4.2	4.0
Tanganyika	--	--	--	--	--	--	1.6	1.5	--	--	--	--	--	--	1.6	1.5
Tunisia	--	--	0.1	0.1	2.1	1.3	0.7	0.7	--	--	--	--	--	--	2.9	2.1
Union of South Africa	--	--	--	--	--	--	1.4	2.4	--	--	--	--	--	--	1.4	2.4
Others	--	--	1.1	0.6	--	--	5.3	2.6	0.1	0.1	--	--	--	0.1	6.5	3.4
Total	2.4	2.8	4.6	3.7	30.5	33.2	36.3	34.3	1.7	2.0	--	--	--	1.2	75.5	77.2
Oceania	2.2	2.3	--	--	--	--	0.9	--	--	--	--	--	0.2	--	3.3	2.3
Others	0.3	0.5	1.3	1.1	1.3	5.3	2.0	4.8	1.0	0.6	0.1	0.2	0.1	0.3	6.1	12.8
Grand Total	54.0	75.5	68.2	72.8	35.4	43.1	264.6	266.4	59.2	46.8	37.8	35.1	9.8	14.8	529.0	554.5

1/ Preliminary. 2/ Less than 50,000 pounds - included in other.

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON 25, D. C.

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FD 14-59
August 28, 1959

WORLD OUTPUT OF DAIRY PRODUCTS UP IN FIRST QUARTER, 1959 1/

Factory output of dairy products in the principal reporting countries in the first quarter of 1959 was slightly above the first quarter of 1958. In terms of whole milk products (milk equivalent - fat basis), an increase in the production of canned milks slightly more than offset a small decline in butter production, while cheese production was about unchanged. The production of dry milks (mainly nonfat dry milk) likewise increased moderately.

While there was considerable variation by countries, preliminary information indicates a slight overall increase in milk production. Weather and feed conditions appear to have been favorable in most Southern Hemisphere countries, where milk output increased. Conditions for production varied in Western Europe, where some areas were affected by drought; milk production was up in some countries but down in others. Output was up slightly in Canada. It was close to the 1958 level in the United States.

Weather conditions were particularly favorable in Australia during the first three months of 1959, and milk production was substantially above a year earlier. Conditions in the principal dairying areas were generally good in the January-March period.

Among the countries of Western Europe, milk production was up in the first quarter in West Germany, Denmark and Norway compared with a year earlier. Increased yields offset a slight reduction in milk cow numbers. In West Germany the increase resulted from ample feed supplies. Milk production was up in Denmark as a result of increased yields from heavier feeding.

France, Ireland, the United Kingdom, Sweden and Switzerland were among the European countries reporting a decline in the first quarter. The poor quality of the hay was the principal factor contributing to lower milk production in France. In Ireland, unfavorable pasture conditions and the unsatisfactory quality of the feed supplies resulted in a sharp decline in milk production. Sweden, Switzerland and the United Kingdom also reported lower milk production.

1/ This circular contains more detailed information than the summary of the same title published in the monthly supplement of Foreign Crops and Markets of July 30, 1959.

In Canada, milk production gained slightly because of higher output per cow, the result of better selection and feeding.

Factory butter production in the first 3 months of 1959 was about 1 percent below comparable 1958, but there was considerable variation among countries. There was less milk for butter in Denmark than a year earlier. In the Netherlands and the United Kingdom, much of the milk for manufacturing went into cheese and canned milks, causing a sharp drop in butter production. The decrease in the output of butter in Ireland reflected the decline in milk production. Butter output also declined in Sweden and Switzerland.

Practically all of the increased milk production in West Germany went into butter. Output also rose in Norway.

In both Australia and New Zealand, where milk production was up, butter production was heavier.

Canada's output was slightly above a year earlier. In the United States, butter production was down.

Cheese production in factories during January-March, 1959 was practically unchanged from the corresponding period of 1958 and the variation in changes among countries was only moderate. Part of the increased milk production in Australia went into cheese, while in New Zealand less milk was available for this dairy product than a year earlier. All countries of Western Europe showed increases except France and Switzerland. In both Canada and the United States, cheese production was above a year earlier.

Output of canned milk rose 6 percent in the first quarter of 1959 compared with the same quarter of 1958. Greater production of evaporated milk accounted for the overall gain. In the Netherlands, more milk was available for condensery products than a year ago. Canned milk production also increased in West Germany and the United Kingdom, but declined in France. In Australia, where milk was diverted to butter and cheese, output also dropped sharply below the 1958 level. In Canada and the United States, total canned milk production for the quarter increased over the previous year.

Production of dried milk, mainly nonfat dry milk, was up 3 percent over 1958. Overall output in Australia rose sharply in line with butter production, and output of nonfat dry milk was almost double that of a year earlier. In West Germany, heavier production of nonfat dry milk accounted for the substantial rise in total dried milk output. The United Kingdom also reported increased production of dried milks, including dry whole, in the first quarter. Output declined in the Netherlands and Sweden.

Throughout the quarter, production in Canada was above 1958. In the United States, dried whole milk output was unchanged from that of a year earlier, but a decline in nonfat dry milk brought production below the 1958 level.

FACTORY DAIRY PRODUCTS: Output in principal producing and exporting countries, January-March, 1959 (preliminary) with comparisons

Country	Butter				Cheese			
	1958		1959	Jan.-Mar.,1959	1958		1959	Jan.-Mar.,1959
	Jan.-March	Oct.-Dec.	Jan.-March	compared with Jan.-Mar.,1958	Jan.-March	Oct.-Dec.	Jan.-March	compared with Jan.-Mar.,1958
	1,000 pounds	1,000 pounds	1,000 pounds	Percent	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Canada	37,965	65,950	38,317	101	1/ 7,719	1/ 17,219	1/ 7,892	102
United States	361,510	287,615	343,920	95	311,855	299,505	314,015	101
Denmark	83,334	73,854	79,366	95	48,501	49,162	54,454	112
Finland	32,284	36,264	--	--	--	--	--	--
France 2/	110,200	231,000	110,200	100	205,600	188,000	183,000	89
Germany, West	179,909	176,278	2/ 198,600	110	--	--	--	--
Ireland	7,661	14,862	4,777	62	--	--	--	--
Netherlands	35,430	30,595	26,235	74	64,903	77,674	72,531	112
Norway	4,997	4,005	6,042	121	14,665	13,733	18,327	125
Sweden	38,920	34,653	34,213	88	21,559	19,661	22,432	104
Switzerland	16,235	11,528	15,591	96	24,034	23,903	23,124	96
United Kingdom	18,592	3,360	2/ 3,600	19	3/ 54,880	3/ 28,224	2/3/ 56,500	103
Argentina	42,615	2/ 27,887	2/ 44,200	104	75,080	2/ 48,943	2/ 78,100	104
Union of South Africa	26,455	21,990	--	--	7,309	7,305	--	--
Australia	105,107	158,211	123,549	118	15,958	35,513	23,540	148
New Zealand	141,951	200,912	147,421	104	65,418	78,577	59,407	91

Country	Canned milk				Dried milk 4/			
	1958		1959	Jan.-Mar.,1959	1958		1959	Jan.-Mar.,1959
	Jan.-March	Oct.-Dec.	Jan.-March	compared with Jan.-Mar.,1958	Jan.-March	Oct.-Dec.	Jan.-March	compared with Jan.-Mar.,1958
	1,000 pounds	1,000 pounds	1,000 pounds	Percent	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Canada	5/ 54,797	5/ 57,023	5/ 55,621	102	6/ 22,447	6/ 43,980	6/ 26,066	116
United States	7/ 465,950	7/ 445,370	7/ 480,340	103	6/ 455,260	6/ 338,870	6/ 447,010	98
France 2/	43,200	47,000	41,300	96	6,600	20,000	13,700	208
Germany, West	136,665	130,451	2/ 146,300	107	24,346	23,892	2/ 29,700	122
Netherlands	131,836	152,383	152,558	116	19,621	8,078	17,417	89
Sweden	--	--	--	--	7,493	5,181	6,166	82
United Kingdom	73,248	73,024	2/ 88,000	120	31,808	15,008	2/ 32,600	102
Argentina	7,743	2/ 8,595	2/ 9,700	125	7,800	2/ 8,675	2/ 8,200	105
Australia	8/ 42,386	8/ 64,299	8/ 37,411	88	21,441	49,161	32,941	154

1/ Cheddar cheese only. 2/ Estimated. 3/ Total cheese production. 4/ Dried whole milk and nonfat solids production. 5/ Both bulk and case goods. 6/ Includes dried milk for animal feeding. 7/ Evaporated whole and condensed whole case goods only. 8/ Includes mixtures of full cream and skim milk, mixtures of full cream, skim and buttermilk, and "coffee and milk".

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other U. S. representatives abroad, and other information.

Current Conditions Abroad

Australia: Conditions appear favorable for dairy production over most of the country.

New Zealand: While weather in June was considerably better than during May, the outlook is not bright, particularly in the North Island, where the feed supply situation is causing concern.

West Germany and Denmark: Long continued dry weather has hurt pastures.

Ireland: Recent mild weather is expected to reverse the downward trend in milk production.

Switzerland: Production prospects were improved by mild weather late in the quarter and in April.

Canada: Weather has favored pastures.

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August 5, 1959

U. S. DAIRY EXPORTS RISE SLIGHTLY FROM LOW 1957 LEVEL

Summary

U. S. dairy product exports in 1958 were up slightly from the low level of 1957. In terms of whole milk equivalent (butterfat basis), exports totaled 2.9 billion pounds, compared with 2.7 billion in 1957. Larger shipments of butter and anhydrous milkfat, especially foreign currency sales under Public Law 480, accounted for all of the increase. For the past two years, exports of dairy products have accounted for about 2 percent of total whole milk production.

The combined value of U. S. dairy product exports in 1958 is estimated at 197 million dollars, a decline of nearly 8 percent. Except for butter and anhydrous milkfat, where both commercial sales and sales under government programs increased, the value of whole milk product exports declined. The value of nonfat dry milk under all programs increased slightly, in line with the increase in exports.

Exports of cheese and canned milk were down. Cheese exports were smaller because of reduced foreign donation shipments. For the past five years 80 percent of total cheese exports have been donation shipments. Exports of canned milk were lower in 1958, mainly because of reduced shipments of evaporated milk to the Philippines.

Shipments of nonfat dry milk reached a record high of 674 million pounds, compared with 671 million pounds in 1957. Most of the nonfat dry milk continued to move under foreign donation programs.

Exports of dry whole milk were down sharply in 1958, owing to the sharp decline in commercial exports to Venezuela from 33.3 million pounds in 1957 to 24.0 million pounds.

1959 Outlook

U. S. dairy product exports in 1959 are expected to be down slightly from last year. With milk production expected to be near the 1958 level and government stocks of most dairy products low, supplies of whole-milk price support commodities (butter and cheddar cheese) available for export will be limited. Foreign donations of butter were discontinued in 1956 and those of cheese were discontinued in 1958. Relatively small supplies of both butter and cheese for special export programs are expected to be available in 1959. Exports of nonfat dry milk should continue at about the level of last year. However, there will probably be a further increase in shipments of nonfat dry milk under Title I, Public Law 480.

Exports

The combined exports of all whole milk dairy products from the United States increased moderately in 1958. The whole milk equivalent (butterfat basis) of total exports amounted to 2.9 billion pounds, (about 2 percent of U. S. milk production) an increase of about 7 percent over 1957. Exports of butter (including the butter equivalent of anhydrous milkfat) accounted for the entire increase, as exports of all other items containing butterfat were down. Due mainly to increased exports under Title I (foreign currency sales) Public Law 480, shipments of butter totaled 32.8 million pounds in 1958 compared with 10.0 million pounds in 1957. Israel was by far the largest importer, taking 16.7 million pounds, all under Title I. Of the 4.6 million exported commercially, Japan imported 2.7 million, the bulk of which was the butter equivalent of anhydrous milkfat.

Cheese exports of 158 million pounds were down 8 percent from 1957 exports of 172 million pounds. Foreign donations accounted for about 84 percent of the total, most of which continued to go to Europe. Foreign currency exports totalea 11.1 million pounds, Israel taking just over half. Commercial exports continued to decline, mainly because of the relatively high price of United States cheese. Latin America remained the major outlet for commercial exports, taking about 62 percent in 1958.

Exports of nonfat dry milk continued to increase slightly, reaching a new record of 674 million pounds. About 65 percent of all nonfat dry milk exports were donations, with 83 percent going to Europe and Asia. Foreign currency export sales increased almost four-fold with Israel, India, the Philippines, and Poland taking the bulk of these shipments. Commercial exports were down slightly to 39.3 million pounds, the bulk of the shipments going to Latin America. Of the 28.6 million pounds going to this area, Mexico imported 18.6 million. The Philippines was the only other major commercial market for U. S. nonfat dry milk taking 3.3 million pounds exclusive of shipments under Government programs.

Dry whole milk exports declined appreciably in 1958, the relatively high price of U. S. milk being a major factor. Venezuela continued to be the principal market for U. S. dry whole milk, taking 86 percent of total exports. Exports of dry whole milk are almost exclusively commercial shipments.

Total canned milk exports were down 19 percent to 163.8 million pounds, although there was an increase in commercial exports. Evaporated milk accounted for about 79 percent of the total. The overall decline was due mainly to a reduction in shipments of evaporated milk to the Philippines. Commercial exports of canned milk increased 46.8 million pounds, with evaporated milk shipments accounting for over 98 percent of the increase. Shipments to the Philippines and Mexico accounted for nearly all of the increase and, together with Cuba, imported about 95 percent of the commercial exports of evaporated milk.

Among other dairy products, exports of infant and dietetic foods (milk base) declined about 20 percent to 12.3 million pounds in 1958. Declines were general in shipments to Latin America, although there was a moderate increase in these exports to Venezuela. Shipments to the Philippines were up slightly. Exports of malted milk compounds and mixes declined by nearly half and there was a reduction in shipments to nearly all major markets. There was also a decline in exports of ice cream powder mixes of 18 percent, with some reduction applicable to most markets. Although these mixes are shipped throughout the world, the heaviest shipments go to countries in the western hemisphere and the Orient.

Imports

The value of U. S. imports of dairy products, including casein, was $45.5 million in 1958, compared with $41.3 million in 1957. Cheese and casein again were the major import commodities, accounting for over 98 percent of the total value. Since most dairy products are under import quotas, variation in the year-to-year volume of imports is limited.

Cheese imports in 1958 totaled 55.7 million pounds, an increase of nearly 10 percent over 1957. Imports of cheese are mainly of the specialty varieties, Pecorino, Provolone and Provolette, and Parmesan from Italy; Swiss from Switzerland; Edam and Gouda from the Netherlands; and Blue Mold from Denmark.

Casein imports increased about 22 percent to total 91.3 million pounds in 1958. Argentina continued to be the major supplier, accounting for 54 percent of U. S. casein imports. Australia, New Zealand and Poland became important suppliers in 1958, accounting for 37 percent of our casein imports.

Table 1--DAIRY PRODUCTS: U. S. exports of specified products, by type of shipment, 1956-58

Commodity	Total exports	Public Law 480			Public Law 665 Section 402	Other government programs 2/	UNICEF donations	Exports exclusive of government programs
		Title I sales for foreign currency	Title II donations	Title III donations 1/				
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Butter 3/:								
1956	182,056	9,246	19,736	125,099	4,404	---	---	23,571
1957	9,986	3,123	2,150	561	92	---	---	4,060
1958	32,754	27,236	---	---	149	788	---	4,581
Cheese:								
1956	175,450	2,528	29,499	127,515	4/	---	---	15,908
1957	172,458	5,222	11,557	143,647	29	---	---	12,003
1958	157,997	11,069	2,962	133,157	27	2,589	---	8,193
Canned milk:								
1956	209,959	8,532	---	---	106,186	---	---	95,241
1957	202,256	13,630	---	---	125,837	---	---	62,789
1958	163,762	6,648	---	---	47,348	---	---	109,766
Dry whole milk:								
1956	40,224	263	---	---	1,019	---	---	38,942
1957	40,246	2,243	---	---	500	---	---	37,503
1958	28,673	472	---	---	170	---	---	28,031
Nonfat dry milk:								
1956	615,469	12,167	40,557	282,896	4,839	97,461	140,728	36,821
1957	670,654	17,499	38,827	410,011	---	76,846	87,659	39,812
1958	673,960	61,944	27,810	437,183	1,849	49,763	56,103	39,309

1/ Food for relief and charity; mainly donations under Section 416 of Public Law 480.
2/ Partially estimated; includes government-to-government sales at nominal prices for restricted uses.
3/ Includes butter equivalent of butter oil and ghee.
4/ Data not available.

Table 2 - BUTTER AND CHEESE: U. S. exports by country of destination, annual 1956-58

Country of destination	Butter 1/						Cheese					
	Total exports, including shipments under government programs			Exports exclusive of government programs 2/			Total exports, including shipments under government programs			Exports exclusive of government programs 2/		
	1956	1957	1958 3/	1956	1957	1958 3/	1956	1957	1958 3/	1956	1957	1958 3/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
North America:												
Canada 4/	45	36	9	45	36	9	1,377	854	883	1,377	854	883
Mexico	227	62	89	55	62	89	828	1,331	1,067	708	813	803
Guatemala	20	33	--	20	33	--	58	104	181	58	104	109
El Salvador	28	30	12	28	30	12	150	586	54	39	52	36
British Honduras	--	--	--	--	--	--	--	--	127	--	--	86
Honduras	33	18	17	33	18	17	210	656	632	--	--	--
Nicaragua	13	63	100	13	63	100	--	--	13	--	--	13
Costa Rica	--	--	--	--	--	--	--	--	409	--	--	--
Panama	853	320	5	673	320	5	2,347	2,177	1,487	445	672	328
Panama Canal Zone	--	--	141	--	--	110	--	--	223	--	--	200
Bahamas	60	23	16	30	23	16	184	128	290	104	128	81
Bermuda	--	--	--	--	--	--	--	--	178	--	--	46
Cuba	1,207	1,092	607	1,207	1,092	61	558	530	726	558	530	690
Haiti	339	61	7	81	61	7	358	286	324	116	116	95
Jamaica	300	--	--	--	--	--	729	1,795	133	7	27	23
Curacao	5	1	1	5	1	1	60	80	83	60	80	56
South America:												
Colombia	--	--	255	--	--	--	--	--	5,366	--	--	--
Ecuador	--	--	--	--	--	--	--	--	448	--	--	--
Peru	656	360	294	474	360	201	40	1,021	1,920	40	56	55
Chile	--	--	--	--	--	--	--	--	18,082	--	--	--
Venezuela	157	2	--	157	2	--	1,531	2,149	2,725	1,531	2,149	2,470
Brazil	18	14	3,631	18	14	--	1,913	1,034	--	--	--	--
Bolivia	860	1	--	--	1	--	1,051	493	1	--	3	1
British Guiana	174	--	--	--	--	--	--	--	--	--	--	--
Europe:												
United Kingdom	240	--	--	220	--	--	5,329	19	1	5,293	--	1
Spain	10,491	--	--	--	--	--	28,010	34,845	28,877	--	--	--
Portugal	4,487	--	--	881	--	--	3,312	3,879	4,070	--	--	1
France	6,543	--	--	4,105	--	--	1,477	550	373	28	33	13
Belgium	44	--	--	32	--	--	2,628	2,125	838	2,571	2,063	147
Germany, West	25,981	--	--	7,076	--	--	23,014	19,240	12,973	125	505	--
Switzerland	--	1,042	22	--	1,042	22	--	--	--	--	--	--
Italy	25,370	2,071	--	--	--	--	41,483	23,900	5,854	--	--	25
Poland	--	--	2	--	--	--	--	--	2,331	--	1,644	--
Austria	5,079	--	--	--	--	--	6,036	4,283	2,677	282	59	--
Trieste	280	--	--	--	--	--	1,122	1,370	378	--	--	--
Yugoslavia	4,193	--	--	--	--	--	13,346	25,591	17,197	20	--	--
Greece	7,977	--	--	--	--	--	13,404	15,819	15,437	--	--	--
Asia:												
Turkey	5,592	4	1,297	--	--	--	5,639	32	4,976	--	--	--
Israel	5,596	674	16,682	--	20	--	2,936	4,887	8,054	654	--	2
Jordan	275	4	--	--	--	--	60	103	60	--	--	--
Iran	2,709	3	2	--	--	2	105	8	10	--	8	10
Pakistan	13,202	3,063	5,112	10	--	--	5	21	16	5	21	16
India	15,721	--	--	--	--	--	1,303	698	1,340	--	--	--
Thailand	--	--	176	--	--	--	--	--	5	--	--	5
Indochina	3,325	85	168	--	--	--	770	1,451	894	--	--	--
Hong Kong	969	--	245	--	--	122	22	9	9	19	9	9
Taiwan	8,115	2	90	--	--	90	105	87	2	--	--	2
Korea	2,106	3	387	--	--	387	969	1,730	4,424	5	--	5
Japan	1,303	4	2,683	3	4	2,683	136	38	665	46	--	60
Philippine, Rep. of	868	54	34	868	54	34	223	816	985	203	--	225
Nansei and Nanpo Is.	--	--	520	--	--	520	--	--	48	--	--	48
Africa:												
Morocco	--	--	93	--	--	62	--	--	950	--	--	--
Liberia	--	--	11	--	--	11	--	--	2	--	--	2
Ghana	--	--	20	--	--	20	--	--	--	--	--	--
Tunisia	--	--	--	--	--	--	--	--	4,604	--	--	1,642
Libya	--	--	--	--	--	--	--	--	1,782	--	--	--
Egypt	5/ 9,261	--	--	--	--	--	6,244	56	978	--	--	5
All others	17,334	861	26	7,539	824	--	6,378	17,677	1,835	1,614	2,077	--
Total	182,056	9,986	32,754	23,571	4,060	4,581	175,450	172,458	157,997	15,908	12,003	8,193

1/ Includes butter equivalent of butteroil and ghee. 2/ Partially estimated. 3/ Preliminary. 4/ Includes Newfoundland and Labrador. 5/ Mainly shipments of butteroil under Section 416 of the Agricultural Act of 1949.

Table 3--DRIED MILK: U. S. exports by country of destination, annual 1956-58

Country of destination	Nonfat dry milk						Dried whole milk					
	Total exports, including shipments under government programs			Exports exclusive of government programs 1/			Total exports, including shipments under government programs			Exports exclusive of government programs 1/		
	1956	1957	1958 2/	1956	1957	1958 2/	1956	1957	1958 2/	1956	1957	1958 2/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
North America:												
Canada 3/	872	1,275	58	872	1,275	58	281	226	305	281	226	305
Mexico	14,430	15,337	19,502	14,021	15,084	18,581	178	150	85	178	150	85
Guatemala	2,006	1,812	1,881	237	305	481	153	99	124	153	99	124
El Salvador	831	1,396	1,435	209	40	1,018	64	78	57	64	78	57
British Honduras	662	330	760	--	--	131	--	--	2	--	--	2
Honduras	1,650	1,079	937	141	259	183	184	83	29	184	83	29
Nicaragua	97	8	8	97	8	8	62	50	55	62	50	55
Costa Rica	337	615	376	--	72	61	251	45	10	251	45	10
Panama Republic	3,289	3,450	2,130	363	651	357	46	1	9	46	1	9
Panama Canal Zone	273	380	142	273	380	81	576	301	37	576	301	37
Bahamas	166	231	253	136	231	133	31	41	38	31	41	38
Bermuda	43	127	228	43	127	158	12	40	3	12	40	3
Cuba	123	105	112	123	105	112	31	56	73	31	56	73
Dominican Republic	85	123	344	46	123	--	108	29	11	108	29	11
Haiti	1,390	499	827	33	59	30	6	1	5	6	1	5
Jamaica	1,785	1,773	1,029	68	--	13	--	--	--	--	--	--
Leeward & Windward Islands	2,752	1,373	1,371	2,752	1,373	1,371	--	--	5	--	--	5
Netherlands Antilles	233	140	237	233	140	202	178	83	78	178	83	78
South America:												
Colombia	10,226	12,432	19,320	97	--	1,373	185	34	--	185	34	--
Ecuador	1,222	250	1,796	103	12	61	191	76	29	191	76	29
Peru	11,830	4,770	11,177	1,366	1,810	3,101	281	160	82	281	160	82
Chile	5,462	3,220	30,441	--	948	19	6	18	273	6	18	273
Venezuela	1,401	2,410	1,675	1,401	2,410	649	32,108	33,307	24,032	32,108	33,307	24,032
Brazil	27,834	23,304	24,067	--	--	--	8	3	--	8	3	--
Bolivia	8,987	749	524	5,349	--	--	4	10	2	4	10	2
Paraguay	1,126	--	682	--	--	--	359	463	--	--	--	--
Argentina	--	559	300	--	559	300	--	96	--	--	96	--
British Guiana	472	243	373	36	123	184	--	--	120	--	--	120
Surinam	668	679	5	--	--	5	--	--	2	--	--	2
Trinidad and Tobago	10	333	110	--	30	--	47	91	--	47	91	--
Europe:												
United Kingdom	37	70	--	--	55	--	--	--	--	--	--	--
Spain	47,620	79,839	56,423	--	--	--	--	--	--	--	--	--
Portugal	4,125	4,651	5,348	--	--	--	--	--	--	--	--	--
Netherlands 4/	2,970	2,534	--	--	--	--	--	--	--	--	--	--
Belgium	231	76	26	231	9	26	16	29	14	16	29	14
France	1,563	423	454	--	--	--	--	--	2	--	--	2
Denmark 4/	39,287	17,576	--	--	--	--	--	--	--	--	--	--
Germany, Fed. Rep. of	23,528	22,810	28,637	246	740	1,158	7	1	3	7	1	3
Switzerland 4/	321	--	--	--	--	--	--	--	--	--	--	--
Italy	28,470	27,194	27,422	--	--	--	--	--	--	--	--	--
Austria	4,402	5,534	2,078	72	--	--	144	--	--	144	--	--
Poland	--	--	16,613	--	--	--	--	--	--	--	--	--
Trieste	1,140	850	1,413	--	--	--	--	--	--	--	--	--
Yugoslavia	29,384	57,028	84,165	--	--	812	--	--	--	--	--	--
Greece	13,237	11,949	10,936	--	--	2	--	--	2	--	--	2

Asia:												
Turkey	9,789	2,114	5,306	--	96	--	10	5	229	--	--	215
Syria	--	558	--	--	--	--	--	--	1	--	--	1
Lebanon	6,318	9,162	705	--	--	705	8	9	12	8	9	12
Israel	23,945	15,718	24,242	--	--	--	--	--	703	--	--	231
Jordon	250	4,797	445	--	--	--	--	--	--	--	--	--
Iraq	2,580	3,237	669	--	--	--	132	150	45	130	150	45
Arabian States	75	28	187	75	28	139	48	39	26	48	39	26
Iran	4,308	2,568	2,035	--	--	122	119	115	77	119	115	77
Afghanistan	75	204	432	--	--	--	13	12	11	13	12	11
Pakistan	16,535	15,472	7,537	213	87	265	10	56	35	10	56	35
India	56,023	66,299	76,121	1,117	--	--	29	101	26	29	101	26
Ceylon	10,078	6,550	5,345	--	--	--	1	10	2	1	10	2
Burma	2,613	2,318	1,254	--	--	--	--	--	2	--	--	2
British Malaya	2,225	1,230	1,344	1,825	1,158	869	20	1	--	20	1	--
Thailand	368	471	820	--	--	--	17	75	12	17	75	12
Indochina	5,311	4,855	5,954	--	--	200	486	347	220	--	--	64
Hong Kong	4,476	5,046	5,927	264	556	135	30	4	2	30	4	2
Taiwan	18,755	13,457	15,341	--	--	--	422	1,613	171	--	--	171
Korea	65,206	29,108	33,661	--	--	780	94	571	447	--	--	447
Japan	59,493	66,974	58,555	240	--	--	202	1	21	202	1	21
Indonesia	5,535	7,159	2,654	--	--	--	--	--	--	--	--	--
Philippines, Rep. of	12,825	25,600	48,510	4,122	7,861	3,293	1,519	786	1,017	1,519	786	1,017
U. S. Trust Territories	1,430	--	--	--	--	--	16	11	--	--	1	--
Africa:												
French Morocco	286	14,410	7,696	40	129	250	--	--	--	--	--	--
French West Africa	--	750	--	--	--	--	--	--	--	--	--	--
British West Africa	--	--	280	--	--	--	--	--	--	--	--	--
Liberia	111	72	42	--	--	6	45	34	23	45	34	23
Algeria	156	991	14	--	--	--	--	--	--	--	--	--
Ghana	100	75	162	100	--	--	--	--	--	--	--	--
Nigeria and Cameroons	344	131	112	--	--	--	--	--	3	--	--	3
Tunisia	--	2,943	2,878	--	284	1,104	--	--	--	--	--	--
Libya	362	2,064	313	--	978	--	--	--	4	--	--	4
Belgian Congo	--	60	110	--	60	2	1,248	622	15	1,248	622	15
Angola	--	--	--	--	--	--	--	--	32	--	--	32
Rhodesia	38	71	34	--	--	34	--	--	1	--	--	1
Union of South Africa	174	247	24	174	247	24	--	--	13	--	--	13
Egypt	332	1,918	3,599	--	--	4	6	--	1	6	--	1
Ethiopia	137	288	282	--	--	--	--	--	--	--	--	--
Kenya	138	524	410	--	--	--	--	--	--	--	--	--
British East Africa	103	225	985	103	--	709	--	--	--	--	--	--
Somaliland	--	330	--	--	--	--	--	--	6	--	--	6
Mozambique	--	--	--	--	--	--	--	--	29	--	--	29
All others	8,398	53,094	4,360	--	1,400	--	232	113	--	337	369	--
Grand Total	615,469	670,654	673,960	36,821	39,812	39,309	40,224	40,246	28,673	38,942	37,503	28,031

1/ Partially estimated. 2/ Preliminary. 3/ Includes Newfoundland and Labrador. 4/ All feed.

TABLE 4--CANNED MILK: U. S. exports by country of destination, annual 1956-58

Country of destination	Evaporated milk						Condensed milk					
	Total exports, including shipments under government programs			Exports exclusive of government programs 1/			Total exports, including shipments under government programs			Exports exclusive of government programs 1/		
	1956	1957	1958	1956	1957	1958	1956	1957	1958	1956	1957	1958
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
North America:												
Canada 3/	66	19	30	66	19	30	18	4	3	18	4	3
Mexico	15,457	13,935	16,027	15,457	13,935	16,027	6	1	49	6	1	49
Nicaragua	390	453	1,792	390	453	1,792	---	---	---	---	---	---
Costa Rica	148	146	177	148	146	177	---	---	---	---	---	---
Guatemala	17	---	---	17	---	---	---	---	3	---	---	3
Honduras	97	52	9	97	52	9	---	1	---	---	1	---
Panama Republic	46	82	29	46	82	29	---	---	---	---	---	---
Panama Canal Zone	4,091	1,702	595	4,091	1,702	595	10	6	---	10	6	---
Bahamas	6	87	139	6	87	139	---	---	---	---	---	---
Cuba	14,034	14,109	8,274	14,034	14,109	8,274	---	---	49	---	---	49
Dominican Republic	---	11	---	---	11	---	---	---	---	---	---	---
Haiti	265	137	5	265	137	5	---	---	---	---	---	---
Jamaica	63	93	27	63	93	27	---	---	---	---	---	---
South America:												
Colombia	134	43	---	134	43	---	---	---	---	---	---	---
Ecuador	69	4	---	69	4	---	---	---	---	---	---	---
Peru	683	1,323	175	683	1,323	175	---	36	---	---	36	---
Venezuela	747	598	311	747	598	311	56	13	53	56	13	53
Trinidad and Tobago	7	6	---	7	6	---	---	---	---	---	---	---
Surinam	---	---	---	---	---	---	---	---	7	---	---	7
Europe:												
Belgium	---	---	---	---	---	---	138	138	298	138	138	298
Sweden	---	---	13	---	---	13	---	---	---	---	---	---
Greece	2,940	4/ 5,866	4/ 6,648	---	---	---	---	---	---	---	---	---
Asia:												
Turkey	---	---	8	---	---	8	---	---	---	---	---	---
Lebanon	---	---	---	---	---	---	---	---	7	---	---	7
Arabian States	181	88	166	181	88	166	5	7	22	5	7	22
Afghanistan	21	26	24	21	26	24	---	---	---	---	---	---
Iran	38	37	49	38	37	49	---	---	---	---	---	---
Pakistan	76	106	73	76	106	73	---	---	8	---	---	8
India	7	10	11	7	10	11	---	---	---	---	---	---
Goa	---	165	---	---	165	---	---	---	---	---	---	---
Burma	4,350	---	---	---	---	---	1,271	4/ 5,345	---	---	---	---
Thailand	---	---	---	---	---	---	359	5/ 1,849	228	---	---	228
British Malaya	65	---	---	65	---	---	1,437	---	---	1,437	---	---
Singapore	---	---	199	---	---	199	---	---	---	---	---	---
Hong Kong	16	---	---	16	---	---	592	84	---	592	84	---
Indochina	1,428	61	227	---	61	227	35,016	5/ 28,205	5/ 33,933	---	---	---
Indonesia	374	---	---	---	---	---	---	15	---	---	15	---
Taiwan	109	4/ 1,098	26	---	---	26	727	4/ 2,096	202	---	---	202
Philippines, Republic of	123,644	123,008	92,952	55,500	28,000	79,537	200	30	109	200	30	109
Korea, Republic	---	---	46	---	---	46	---	---	---	---	---	---
Japan	137	567	24	137	567	24	---	4	---	---	4	---
French Pacific Islands	25	---	137	25	---	137	---	---	6	---	---	6
U. S. Trust Territories	---	406	---	---	406	---	---	31	---	---	31	---
Liberia	---	---	16	---	---	16	---	---	---	---	---	---
All others	375	150	572	375	149	572	18	3	4	18	3	4
Grand Total	170,106	164,388	128,781	92,761	62,416	108,718	39,853	37,867	34,981	2,480	373	1,048

1/ Partly estimated. 2/ Preliminary. 3/ Includes Newfoundland and Labrador. 4/ All under Title I, Public Law 480. 5/ All under Section 402, Public Law 665.

TABLE 5.--DAIRY PRODUCTS (Malted milk compounds, infants and dietetic foods): U. S. exports by country of destination, annual 1956-58

Country of destination	Malted milk compounds and mixes			Infant and dietetic foods (milk base)		
	1956	1957	1958 1/	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
North America:						
Canada 2/	94	86	40	259	418	178
Mexico	51	34	22	1,013	959	569
Guatemala	82	42	56	309	407	301
El Salvador	38	46	38	236	223	235
Honduras	22	26	42	153	201	214
Nicaragua	22	20	23	139	190	159
Costa Rica	9	2	--	223	241	207
Panama, Republic of	51	118	72	212	586	395
Panama Canal Zone	26	21	2	19	17	32
Cuba	323	372	330	358	383	196
Dominican Republic	98	51	72	151	140	131
Haiti	14	43	24	109	82	75
Netherlands Antilles	111	173	118	90	111	98
South America:						
Colombia	--	--	3	1,505	996	191
Ecuador	6	4	12	274	299	303
Peru	2	28	2	218	256	174
Bolivia	18	9	6	34	22	52
Chile	--	1	--	9	157	5
Venezuela	37	132	88	4,070	3,733	3,987
Uruguay	7	10	5	86	124	21
Argentina	--	--	--	--	--	54
Europe:						
United Kingdom	--	--	--	33	120	43
Belgium	37	60	45	271	147	98
Germany, West	--	--	13	--	--	73
Italy	--	--	--	97	1,529	--
Asia:						
Lebanon	1	3	--	56	43	65
Arabian States	3	11	16	46	27	134
Iraq	--	21	--	248	353	134
Iran	36	15	--	56	150	125
India	6	4	--	61	56	15
Ceylon	1,054	1,074	451	22	20	39
British Malaya	--	38	--	3	14	4
Thailand	--	1	11	368	314	132
Indochina	105	--	244	3/ 154	--	73
Hong Kong	1	24	4	76	73	66
Taiwan	--	--	--	3/ 697	3/ 391	479
Indonesia	--	486	--	70	228	355
Philippines, Republic of	999	1,685	732	1,493	1,491	2,108
Africa:						
French Morocco	4	1	2	--	110	--
Egypt	--	--	--	90	34	112
Union of South Africa	--	1	--	345	430	383
All others	123	172	154	157	237	266
Total	3,380	4,814	2,627	13,792	15,312	12,281

1/ Preliminary. 2/ Includes Newfoundland and Labrador. 3/ All under Section 402, Public Law 665.

TABLE 6.--DAIRY PRODUCTS: U. S. exports by category, quantity, and value, 1956-58 1/

Item	Quantity			Value 2/		
	1956	1957	1958 3/	1956	1957	1958 3/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 dollars	1,000 dollars	1,000 dollars
Milk and cream, fresh	2,695	3,125	3,477	692	729	653
Butter	102,762	6,078	23,616	47,813	3,273	9,141
Cheese, all types	175,450	172,458	157,997	52,259	45,246	37,115
Milk, processed:						
Condensed, sweetened	39,853	37,868	34,981	8,776	8,571	7,857
Evaporated	170,106	164,388	128,781	26,547	25,642	20,550
Dried whole milk	40,224	40,246	28,673	19,853	20,438	14,734
Nonfat dry milk	615,469	670,654	673,960	74,173	91,500	91,659
Milk products, processed:						
Infants' and dietetics', chiefly milk base	13,792	15,312	12,281	9,080	8,981	8,362
Malted milk compounds and mixtures	3,380	4,814	2,627	1,623	2,400	1,320
Ice cream powder mixes	845	783	643	361	336	281
Casein (inedible) 4/	277	57	177	65	25	70
Dairy products, n.e.c. 5/	88,383	11,405	11,323	47,927	6,515	5,462
Total value	--	--	--	289,169	213,656	197,204
	Million pounds	Million pounds	Million pounds			
Milk equivalent of total exports	6,311	2,716	2,902			

1/ Includes shipments for relief and charity under Public Law 480.
2/ Based on U. S. Department of Commerce data. For donations, values are based on CCC export sales prices.
3/ Preliminary.
4/ Not included with dairy products in Census classification.
5/ Includes butter equivalent of butter oil.

TABLE 7.--Total imports of milk, cream, and dairy products, annual 1956-58

Item	Quantity			Value		
	1956	1957	1958 1/	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 dollars	1,000 dollars	1,000 dollars
Condensed, sweetened-	4	27	2	1	4	--
Evaporated-----------	2	--	--	--	--	--
Condensed, n.e.s.----	--	--	1	--	--	--
Whole milk, dried----	2/ 44	6	6	1	1	1
Skimmed milk, dried--	1,420	1,695	1,946	130	165	144
Buttermilk, dried----	162	136	316	17	13	28
Malted milk compounds dried--------------	--	--	5	3	--	2
Butter---------------	2/ 721	749	788	371	374	373
Cheese, all----------	53,716	50,871	55,737	27,410	25,979	27,322
Swiss--------------	8,319	8,957	9,341	4,919	5,292	5,248
Gruyere------------	2/ 3,683	3,808	3,669	2,262	2,288	2,225
Romano-------------	1,791	1,141	983	580	383	387
Pecorino 3/--------	13,741	12,281	14,735	8,346	6,940	7,738
Regginao-----------	1,630	1,430	1,063	610	569	494
Parmesan-----------	269	343	452	129	175	253
Provoloni and Provolette-------	2/ 4,001	3,681	3,605	1,950	1,873	1,891
Roquefort----------	1,861	2,097	2,036	1,441	1,587	1,544
Cheddar------------	2,782	2,243	3,022	764	646	823
Blue mold----------	2/ 3,994	3,596	3,993	1,801	1,651	1,724
Edam and Gouda-----	5,187	4,580	4,345	2,057	1,802	1,733
Bryndza------------	49	29	34	15	8	9
Sbrinz-------------	117	29	16	40	9	7
All other cheese, including processed, not listed above-----	2/ 6,292	6,661	8,443	2,496	2,751	3,246
Casein, dried--------	70,673	74,604	91,265	14,276	14,659	17,569
Lactose, dried-------	--	--	--	126	142	89
Total value-----	--	--	--	42,335	41,337	45,528

1/ Preliminary. 2/ Revised. 3/ Pecorino cheese, sheep's milk cheese, including small amounts not suitable for grating.

Prepared in Foreign Agricultural Service. Compiled from Foreign Commerce and Navigation of the United States and official records of the Bureau of the Census.

TABLE 8.--Butter and cheese: Imports by country of origin, annual 1956-58

Country of origin	Butter			All cheese		
	1956	1957	1958 1/	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
North America:						
Canada 2/	--	3	--	697	484	496
Cuba	--	--	--	--	--	11
South America:						
Argentina	3/ 149	89	20	3,621	2,580	2,121
Brazil	15	5	--	9	1	10
Europe:						
Denmark	168	137	180	5,746	5,672	6,984
Netherlands	--	--	21	4,558	4,203	4,039
United Kingdom	3	--	1	35	28	132
Portugal	--	--	--	37	39	--
Sweden	3/ 7	8	97	73	107	152
Switzerland	--	--	--	10,422	10,655	10,317
Yugoslavia	--	--	--	275	260	312
Austria	--	--	--	277	442	467
Belgium	--	--	--	137	117	26
Finland	--	--	--	693	812	1,142
France	--	--	--	1,957	2,240	2,292
Germany, West	--	--	--	312	354	293
Spain	--	--	--	38	13	2
Greece	--	--	--	504	344	207
Ireland	--	--	--	--	--	31
Italy	--	--	--	21,095	20,004	22,484
Malta and Gozo	--	--	--	16	23	--
Norway	--	--	--	759	630	753
Bulgaria	--	--	--	5	12	20
Czechoslovakia	--	--	--	42	21	41
Oceania:						
Australia	20	1	12	--	11	--
New Zealand	358	505	457	2,374	1,774	3,327
Others	--	1	--	3/ 34	44	78
Total	721	749	788	53,716	50,871	55,737

1/ Preliminary. 2/ Includes Newfoundland and Labrador. 3/ Revised.

Compiled from Foreign Commerce and Navigation of the United States and official records of the Bureau of the Census.

TABLE 9 .--Cheese: Imports by variety and country of origin, annual 1954-58

Variety and country of origin	1954	1955	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Cheddar:					
Canada 2/	482	526	399	458	456
Denmark	--	11	1	--	5
Sweden	5	5	4	4	1
Australia	--	--	--	11	--
New Zealand	2,327	2,035	2,373	1,770	2,531
Others	--	--	5	--	29
Total	2,814	2,577	2,782	2,243	3,022
Swiss 3/:					
Austria	237	195	276	443	455
Belgium	--	--	137	116	25
Denmark	290	320	446	598	725
Finland	761	792	670	797	1,139
France	--	5	1	--	1
Germany, West	37	62	107	126	46
Ireland	1	--	--	--	--
Italy	22	48	53	109	78
Netherlands	23	181	49	53	356
Norway	--	--	--	22	--
Sweden	--	60	--	--	9
Switzerland	10,124	10,551	10,247	10,501	10,176
Others	12	12	17	--	--
Total	11,507	12,226	12,003	12,765	13,010
Romano:					
Italy	--	7	6	--	22
Argentina	1,542	1,359	1,785	1,141	950
Brazil	--	--	--	--	11
Total	1,542	1,366	1,791	1,141	983
Pecorino:					
Greece	19	46	100	128	128
Italy	13,180	12,804	13,341	11,832	14,031
Yugoslavia	17	118	104	104	133
Argentina	78	230	145	175	171
New Zealand	--	--	--	--	256
Others	23	4/ 44	52	42	16
Total	13,317	13,242	13,742	12,281	14,735

See footnotes at end of table

TABLE 9.--Cheese: Imports by variety and country of origin, annual 1954-58--continued

Variety and country of origin	1954	1955	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Reggiano:					
Italy	322	631	407	496	420
Argentina	1,256	625	1,223	934	643
Others	33	--	--	--	--
Total	1,611	1,256	1,630	1,430	1,063
Parmesan:					
Italy	251	396	269	343	414
Argentina	--	--	--	--	38
Total	251	396	269	343	452
Provolone and Provolette:					
Italy	3,634	4,035	3,867	3,672	3,599
Argentina	3	--	5/	9	6
Canada	--	40	133	--	--
Total	3,637	4,075	4,000	3,681	3,605
Roquefort:					
France	1,875	1,630	1,855	2,097	2,036
Others	4	--	6	--	--
Total	1,879	1,630	1,861	2,097	2,036
Blue mold:					
Denmark	3,130	3,761	3,797	3,455	3,785
France	11	8	8	4	4
Italy	104	103	103	100	131
Norway	--	25	31	10	9
Sweden	39	25	8	14	43
Switzerland	4	25	30	--	--
United Kingdom	16	10	13	11	14
Others	--	27	4	5	7
Total	3,304	3,984	3,994	3,596	3,993
Edam and Gouda:					
Cuba	--	--	--	--	11
Denmark	251	357	395	246	355
Finland	11	--	11	11	3
Netherlands	4,161	4,255	4,380	3,973	3,490
Norway	196	151	187	140	240
Portugal	3	5	3	3	4
Sweden	4	--	8	14	16
Switzerland	5	2	14	6	34
Argentina	101	142	151	180	190
Others	--	3	6/ 47	--	2
Total	4,732	4,915	5,196	4,580	4,345

TABLE 9.--Cheese: Imports by variety and country of origin, annual 1954-58--continued

Variety and country of origin	1954	1955	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Sbrinz:					
Argentina	82	37	117	29	16
Total	82	37	117	29	16
Other cheeses:					
Canada 2/	7	129	161	25	40
Mexico	6	--	--	--	1
Dominican Republic	--	--	--	--	--
Belgium and Luxembourg	6	1	--	2	--
Bulgaria	45	--	4	12	20
Denmark	845	1,015	1,110	1,373	2,114
Finland	19	14	11	4	--
France	47	68	92	139	252
Germany, West	7/ 142	284	206	229	248
Greece	64	257	403	217	79
Italy	3,002	3,302	3,032	3,449	3,787
Malta	18	19	--	2	--
Netherlands	141	144	128	176	193
Norway	513	566	539	459	504
Portugal	22	38	29	36	37
Sweden	59	47	54	74	83
Switzerland	128	126	133	148	107
Turkey	7	--	--	--	--
United Kingdom	7	8	6	15	89
Yugoslavia	180	181	171	156	178
Argentina	--	8	200	107	106
New Zealand	--	--	--	7	540
Others	7/ 24	8/ 40	9/ 62	58	99
Total	5,282	6,247	6,341	6,688	8,477

1/ Preliminary. 2/ Includes Newfoundland and Labrador. 3/ Includes Ementhaler with eye-formation and Gruyere process cheese. 4/ Of which, 32,000 pounds from Spain. 5/ Less than 500 pounds. 6/ Of which, 11,000 pounds from U. K. and 16,000 pounds from Italy. 7/ Revised. 8/ Of which, 23,000 pounds of Bryndza from Czechoslovakia. 9/ Of which, 42,000 pounds of Bryndza from Czechoslovakia.

Compiled from Foreign Commerce and Navigation of the United States and official records of the Bureau of the Census.

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TABLE 10.--Casein: Imports by country of origin, annual 1954-58

Country of origin	1954	1955	1956	1957	1958 1/
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Canada 2/	3,901	2,824	2,951	1,074	648
Azores	120	69	210	314	404
Belgium	--	--	--	--	3
Denmark	114	--	173	10	222
France	3,564	797	448	1,128	1,209
Germany, West	22	--	109	--	778
Netherlands	606	770	460	1,024	2,244
Norway	460	665	428	1,163	573
Poland	--	--	--	--	7,490
Portugal	126	--	--	221	139
Sweden	--	4	--	2	43
Argentina	41,249	56,243	51,712	55,673	49,021
Brazil	925	219	109	192	241
Uruguay	1,695	875	492	923	989
Australia	1,460	4,413	6,503	4,152	13,567
New Zealand	5,591	7,563	6,998	8,298	13,560
Others	--	38	80	430	134
Total	59,833	74,480	70,673	74,604	91,265

1/ Preliminary.
2/ Includes Newfoundland and Labrador.

Compiled from Foreign Commerce and Navigation of the United States and official records of the Bureau of the Census.

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FD 12-59
July 30, 1959

BUTTER AND CHEESE PRODUCTION CONTINUES UPWARD TREND

Total farm and creamery butter production in 31 important producing countries increased for the fourth consecutive year in 1958. At 10.2 billion pounds, production was 2 percent (200 million pounds) above 1957 and 12 percent (1.1 billion pounds) above the 1951-55 average. About half of the countries reported increased output in 1958. Of the remainder, most reported changes of less than 2 percent, and significant declines from the 1957 level occurred in only 7.

Factory butter output rose 3 percent to 7.2 billion pounds. Compared with the 1951-55 average, production was 1.4 billion pounds (24 percent) larger. Among 15 European countries reporting, output was up in 8. The most significant gain was in West Germany.

Total farm and factory cheese production in the 27 countries for which data are available totaled 5.8 million pounds, an increase of 2 percent over that in 1957 and nearly 15 percent greater than the 1951-55 average. This was the fourth consecutive year of increase. There were significant increases in only 6 countries, and significant declines in only 5. As in 1957, Western Europe continued to account for about 60 percent of total production.

Butter

Among European countries, the most significant increase in total farm and creamery butter production occurred in West Germany, where output increased from 752 million pounds in 1957 to 856 million in 1958, a gain of 14 percent. This increase was largely the result of a diversion of milk from cheese and dry milks, because of heavy imports and low prices for these products. Output in France was 750 million pounds, 6 percent above the 1957 level. Other European countries showing increased production in 1958 were the Netherlands, Switzerland, Finland, Belgium and Austria. Production of 1.4 billion pounds was reported in the U.S.S.R., up 2 percent from a year earlier. The largest decrease was in Denmark, where production, estimated at 347 million pounds, was down 10 percent from 1957.

Butter: Estimated world production, 1/ average 1951-55, and annual 1956, 1957 and 1958 2/

Continent and Country	Average 1951-55	1956	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds
North America:				
Canada	316	319	318	350
United States	1,526	1,562	1,549	1,508
Cuba 3/	4	5	6	5
Total North America 4/	1,865	1,905	1,895	1,885
South America:				
Argentina 3/	117	145	125	113
Brazil 5/	104	111	108	109
Chile	14	13	14	15
Colombia	6/ 18	20	21	22
Peru	4	5	5	5
Uruguay 3/	8	9	13	13
Venezuela 3/	5	7	8	11
Total South America 7/	275	315	295	290
Europe:				
Austria	64	72	86	88
Belgium	186	197	197	205
Denmark	371	364	385	347
Finland	137	162	173	175
France	610	626	705	750
Germany, West	701	737	752	856
Greece 8/	17	20	19	23
Ireland	120	142	162	156
Italy	134	136	132	134
Luxembourg 3/	9	10	11	5/ 11
Netherlands	174	169	168	202
Norway	37	39	46	39
Portugal 3/	5	5	6	6
Sweden	215	183	195	192
Switzerland	56	60	63	68
United Kingdom	48	76	96	87
Yugoslavia	24	36	45	44
Total of above European countries	2,908	3,034	3,241	3,383
Africa:				
Kenya 3/	9	11	11	5/ 11
Union of South Africa	77	92	93	89
Total Africa 9/10/	210	245	250	240
Oceania:				
Australia	375	462	404	409
New Zealand	429	468	481	501
Total Oceania 11/	810	935	890	915
Estimated World Total 10/12/	9,100	13/9,700	10,000	10,200

1/ Includes farm butter. 2/ Preliminary. 3/ Creamery butter only. 4/ Includes estimates for other North America. 5/ Estimated. 6/ Less than a 5-year average. 7/ Includes estimates for other South America. 8/ Made from the milk of cows, buffalos, sheep and goats. 9/ Includes estimates for other Africa. 10/ Includes product weight of ghee in those countries where ghee production is common, especially Egypt, India, Turkey and other Middle and Far Eastern countries. 11/ Includes estimates for other Oceania. 12/ Estimates include reported factory production for U.S.S.R. and estimated factory production for other Eastern Europe and Asia, including China; rounded. 13/ Revised.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other United States representatives abroad, and other information.

Cheese: Total production 1/ in specified countries, average 1951-55, and annual 1956, 1957 and 1958 2/

Country	Average 1951-55	1956	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds
Canada	87	95	110	101
United States	1,285	1,388	1,404	1,408
Cuba	10	12	12	12
Argentina 3/	236	275	260	241
Brazil 3/4/	67	75	75	80
Chile	31	28	30	30
Colombia	5/ 74	90	96	101
Uruguay	14	14	20	21
Austria	31	40	46	48
Belgium	22	25	29	30
Denmark	184	186	216	236
Finland	45	62	52	50
France 6/	647	705	862	950
Germany, West 3/	344	347	341	317
Greece 7/	132	152	124	154
Ireland 3/	5	6	6	5
Italy 6/	706	761	741	766
Netherlands	342	368	384	410
Norway 8/	67	74	70	83
Portugal 3/ 8/	4	5	5	5
Sweden	123	112	115	113
Switzerland 8/	124	133	140	136
United Kingdom	149	224	256	212
Union of South Africa	25	29	27	9/ 26
Japan 3/	1	4	6	8
Australia	99	97	86	84
New Zealand	229	214	217	197
Total of above countries	5,083	10/ 5,521	5,730	5,824

1/ Whole milk cheese made from cows' milk unless otherwise noted. 2/ Preliminary. 3/ Factory cheese only. 4/ Production in federally-inspected plants only. 5/ Less than a 5-year average. 6/ Includes goats' milk and sheep's milk cheese. 7/ Includes goats' milk, buffalos' milk and sheep's milk cheese. 8/ Includes goats' milk cheese. 9/ Estimated. 10/ Revised.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other United States representatives abroad, and other information.

Butter: Factory production in specified countries, average 1951-55, and annual 1956, 1957 and 1958 1/

Country	Average 1951-55	1956	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds
Canada	296	305	306	338
United States	1,327	1,413	1,413	1,386
Cuba	4	5	6	5
Argentina	117	145	125	113
Brazil 2/	55	67	64	65
Chile	7	7	7	7
Uruguay	8	9	13	13
Venezuela	5	7	8	2/ 11
Austria	44	52	68	70
Belgium	88	102	106	111
Denmark	371	364	385	347
Finland	102	145	159	164
France	479	573	624	662
Germany, West	630	663	685	792
Ireland	80	97	109	105
Luxembourg	9	10	11	2/ 11
Netherlands	174	169	168	202
Norway	24	28	35	30
Portugal	5	5	6	6
Sweden	210	182	194	191
Switzerland	52	59	62	67
United Kingdom	30	56	76	67
Union of Soviet Socialist Republics	830	1,224	1,398	1,426
Kenya	9	11	11	2/ 11
Union of South Africa	69	84	85	2/ 81
Japan	12	17	21	28
Australia	368	455	397	402
New Zealand	417	455	468	488
Total of above countries	5,822	3/6,709	7,010	7,199

1/ Preliminary. 2/ Estimated. 3/ Revised.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other United States representatives abroad, and other information.

Cheese: Factory production 1/ in specified countries, average 1951-55, and annual 1956, 1957 and 1958 2/

Country	Average 1951-55	1956	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds
Canada	86	94	109	100
United States	1,285	1,388	1,404	1,408
Cuba	5	6	6	6
Argentina	236	275	260	241
Brazil 3/	67	75	75	80
Chile	21	18	20	20
Austria	28	37	43	45
Belgium	19	23	25	27
Denmark	184	186	216	236
Finland	45	62	52	50
Germany, West	344	347	341	317
Ireland	5	6	6	5
Netherlands	342	338	357	382
Norway 4/	65	72	68	81
Portugal 4/	4	5	5	5
Sweden	123	112	115	113
Switzerland 4/	115	124	131	127
United Kingdom	141	215	245	201
Union of South Africa	24	28	26	5/ 25
Japan	1	4	6	8
Australia	99	97	86	84
New Zealand	229	214	217	197
Total of above countries	3,468	6/ 3,726	3,813	3,758

1/ Whole milk cheese made from cows' milk, unless otherwise noted. 2/ Preliminary. 3/ Production in federally-inspected plants only. 4/ Includes goats' milk cheese. 5/ Estimated. 6/ Revised.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other United States representatives abroad, and other information.

New Zealand's production rose 4 percent to 501 million pounds, while Australia's production rose 1 percent to 409 million pounds. Production is believed to have increased in Brazil and Venezuela, but decreased in Argentina. An increase of 10 percent brought output in Canada to 350 million pounds. In the United States, butter production at 1.5 billion pounds was 3 percent below that of 1957.

Cheese

Among Western European countries, the most significant increases in total cheese production in 1958 occurred in France, although there were appreciable increases also in Greece, the Netherlands, Italy, Denmark and Norway. Biggest declines occurred in the United Kingdom and West Germany, a less important decline in Switzerland.

Significant declines occurred last year in Argentina, Canada and New Zealand. Other countries contributing to the apparent decline in factory cheese production were Sweden and Australia.

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FD 11-59
July 24, 1959

U. S. FACING DRY WHOLE MILK PRICE COMPETITION IN VENEZUELA

Venezuela, with a population of 6.1 million, has been by far the largest market for U. S. dry whole milk in recent years, taking 28 percent of U. S. production and about 82 percent of U. S. exports in 1958. However, previous attention given to the matter of nutrition suggests that many Venezuelans are not getting enough of the nutrients found in milk. Per capita milk consumption is low compared with that in the United States and other leading milk-consuming countries throughout the world. Dietary levels in Venezuela could be improved by expanding the use of milk in several forms.

Total milk production in Venezuela during 1958 is estimated to have been 350 million liters, or about 795 million pounds. This is 55 percent greater than the 513 million in 1955. The only longtime series of figures available regarding milk production are receipts of milk at pasteurizing plants. As indicated in Table 1, these have increased from less than 24 million pounds in 1940 to approximately 325 million pounds in 1958. Since 1951, the annual increase in raw milk delivered to these plants has been less than 30 million pounds during only 2 years, 1956 and 1958. In 1952, the increase was roughly 43 million pounds. This growth may be explained, in part, by the growth in the number of pasteurizing plants. Data indicates that approximately 40 percent of the milk produced annually was pasteurized for fluid use, the balance being consumed raw, used in the manufacture of dairy products, fed, and wasted.

This circular is based on firsthand observations of W. Bruce Silcox, Agricultural Economist, Dairy and Poultry Division, Foreign Agricultural Service, during a marketing study in Venezuela and upon information obtained from the U. S. Agricultural Attache and various Venezuelan government and trade sources.

TABLE 1.--Venezuela: Milk delivered to pasteurizing plants during selected periods, 1940-58

Year	Received at plant	Year	Received at plant
	1,000 pounds		1,000 pounds
1940	23,935	1953	164,116
1945	31,764	1954	195,704
		1955	221,722
1950	59,551	1956	258,090
1951	82,517	1957	296,719
1952	125,660	1958	325,226

Source: Dairy Development Division of the Ministry of Agriculture for 1940-57 data; 1958, Foreign Agricultural Service estimate.

Subsidy Encourages Production: The Venezuelan Government is seeking to expand the domestic dairy industry. An evidence of this is the recently expanded subsidy program to dairy producers. During recent years, a subsidy based on sales of pasteurized milk for fluid use has been paid to producers. Beginning in October 1958, however, the subsidy program was expanded to cover milk for fluid and manufacturing use as long as the milk goes to a plant licensed by the Minister of Health. The rate of subsidy is based upon certain farm inspection requirements, and the bacterial content of the milk as determined by the use of the methylene blue reduction test. Three time-intervals with respect to change in color under the test, with corresponding rates of subsidies, are applied. For milk that maintains color under the test for more than 6 hours, the rate of subsidy is sixteen one-hundredths of 1 bolivar per liter, or about 4.7 cents per quart. These payments are made monthly directly to producers on the basis of plant records. The expanded subsidy program will increase the competition to be met by U. S. dry whole milk. The production of both raw milk and dry whole milk is increasing in Venezuela.

Other factors are the government's program to eradicate tuberculosis and brucellosis; the availability of loans to dairy farmers for the purchase of purebred animals; land-clearing and irrigation projects; the construction of fertilizer plants; a school of agriculture; providing dairy inspectors; an extension service to furnish the results of research free, veterinary services at cost; and the creation in December 1958 of a special council for a national program of milk development.

Handicaps Retarding Production: Producers are handicapped by lack of capital and transportation facilities. Parasites and disease are a constant threat, and milk production per cow is estimated at only 11 pounds per day. Methods of producing milk are improving rapidly, however; and substantial annual increases in production may be expected.

Production of dry whole milk in Venezuela during 1958 is estimated to have been at least 11 million pounds compared with an estimated 2.4 million in 1949 and 3.8 million in 1951.

Ratio Encourages Purchase of Domestic Product: Consistent with its desire to protect Venezuela's milk-drying industry and to increase returns to dairymen, the government in March 1950 published a decree directly affecting both local and imported dry whole milk.

Among the provisions of the decree was the requirement that the only dry whole milk plant in Venezuela at that time pay a stipulated price to producer-members of the Rural Association of Zulia, the plant's production area. This was fixed at roughly 12 cents per quart. The decree also required association members to sell their entire production to Indulac (the milk-drying corporation).

Effective on June 1 of the same year, in order to be exempt from the import duty on dry whole milk, importers were required to purchase 1 pound of domestic dry whole milk to each 8 pounds imported. The interest of the dairy industry and the government in further expanding domestic production was indicated by the later increase in the ratio to 1 pound of domestic to 6 pounds of imported powder and, still later, during February 1958, to 1 to 5. The industry and the Venezuelan Federation of Commerce and Industry had recommended that the proportion be revised to 1 to 4. The import duty on dry whole milk is currently equivalent to 6.8 cents per pound.

U. S. Exports to Venezuela Decline: During the 5-year period, 1946-50, U. S. exports of dry whole milk to Venezuela averaged 33.0 million pounds. In 1957, 33.3 million pounds were shipped to that country. During 1958, however, U. S. exports of dry whole milk to Venezuela had declined to approximately 24 million pounds. During 1958, total U. S. exports of dry whole milk, including 472 thousand pounds shipped abroad under Title I, Public Law 480, for foreign currencies and 170 thousand pounds under Section 402 of Public Law 665 for Mutual Security uses, were 29.3 million pounds. The statistical relationship between U. S. production of dry whole milk and exports of this product are shown in Table 2.

Although U. S. production of dry whole milk during 1958 declined more than 24 million pounds from 1957 to 85.5 million pounds, total exports declined less than 11 million pounds during the same period.

The percent of total U. S. exports that went to Venezuela during the last 2 years has not changed significantly.

While U. S. exports of dry whole milk to Venezuela declined from 72.7 percent of total exports from all countries to that country in 1953 to 33.2 percent in 1958, a decline of 39.5 percent, exports from the Netherlands, Canada, and Denmark increased 8.6, 8.1, and 22.7 percent, respectively.

TABLE 2.--Dry Whole Milk: U. S. production and exports, total and to Venezuela, 1946-58 inclusive

Year	U. S. production	Total exports	Exports to Venezuela	
			Quantity	Percentage of total
	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Average 1946-50-	154,782	96,403	33,043	34.3
1951------------	131,017	59,496	38,424	64.6
1952------------	101,732	42,319	32,631	77.1
1953------------	104,352	46,070	35,147	76.3
1954------------	94,349	42,421	31,540	74.3
1955------------	106,923	45,878	35,665	77.7
1956------------	116,366	40,224	32,108	79.8
1957------------	109,924	40,246	33,307	82.8
1958------------	85,500	29,323	24,032	82.0

TABLE 3.--Dry Whole Milk: Exports to Venezuela from the United States, the Netherlands, Canada, and Denmark, average 1948-52 and annual 1953-58

Country	Average 1948-52	1953	1954	1955	1956	1957	1958
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
U. S.---------	38.8	35.1	31.5	35.7	32.1	33.3	24.0
Netherlands--	1/ 2.9	5.3	7.2	7.9	9.9	10.6	14.2
Canada--------	3.3	7.2	9.6	12.3	13.3	13.2	16.6
Denmark-------	2/ 10.9	0.7	0.7	0.9	1.3	8.3	17.5
Total------	55.9	48.3	59.0	56.8	56.6	65.4	72.3
Percent of total from	Percent	Percent	Percent	Percent	Percent	Percent	Percent
U. S.--------	69.4	72.7	64.2	62.8	56.7	50.9	33.2
Netherlands-	5.2	11.0	14.7	13.9	17.4	16.1	19.6
Canada------	5.9	14.9	19.6	21.7	23.4	20.3	23.0
Denmark-----	19.5	1.5	1.5	1.6	2.3	12.7	24.2

1/ Less than 5-year average.

2/ 1947-51.

The U. S. percentage of total shipments to Venezuela during 1959 is expected to show a further decline.

Consumption of dry whole milk in Venezuela increased from 47.6 million pounds in 1951 to an estimated 83 million pounds during 1958.

Retail Prices Compared: The price competition faced by the United States in dry whole milk in Venezuela was reflected in the retail prices of certain brands in the leading supermarkets in Caracas in December 1958. Although prices for many of the more than 60 brands were noted, the retail prices of some of those sold in largest quantities would appear to be representative. The average price of three leading U. S. brands in December 1958 was 67.5 cents per pound in 5-pound cans. In contrast, the average retail price of 3 leading Dutch and Danish brands was 52 cents per pound. Four other prominent European brands were selling at an average of 46.7 cents per pound. Accordingly, European brands of comparable quality were selling for 15.5 cents per pound below U. S. brands. On certain other popular brands the margin of difference was almost 21 cents per pound.

The prevailing retail price of the leading domestically produced brand similar in composition to many brands selected widely by consumers was 51 cents per pound.

Although less than half (41 percent) of the brands noted especially for fat content were labeled as containing 28 percent fat, many brands selling in largest quantities contained this percentage. There was little variation in the fat content of dry whole milk offered for sale. None contained over 28 percent, and the next most common percentage noted was 26 percent fat.

Approximately 75 percent of the dry whole milk sold through stores in Caracas, Maracaibo, and Maracay was packed in 5-pound containers at a cost to consumers of 11 to 12 cents less per pound than in 1-pound cans. Middle and upper income families with adequate storage space have found this container convenient and economical, and lower income families are aware of the savings when they can take advantage of it. Some hotels, restaurants, confectioners, small ice cream makers, and bakers also find the 5-pound can convenient. Larger industrial food establishments use an appreciable quantity, put up in 25-pound gas-packed cans. A few of the largest bakers and ice cream manufacturers buy in 200-pound barrels or drums.

Sales in 2-1/2 pound cans accounted for 18 percent of the total being sold through stores, while quantities purchased in 1-pound cans represented 7 percent.

No sales in consumer envelopes were observed.

Modified Milks Find Market: In addition to using dry whole milk, as such, there has been a steadily increasing demand for dietetic and infant foods with a milk base. These products are subject to the full import duty, equivalent to about 1.4 cents per pound, if classified under Import Tariff Classification No. 029-09-03. U. S. exports of infant and dietetic foods (milk base) to Venezuela during recent years have averaged between 3.5 to 4 million pounds. In 1956, these were slightly more than 4 million pounds, while, in 1957 and 1958, the corresponding figures were 3.7 million and 4.0 million pounds respectively. Data regarding imports of modified milks, as such, from other countries is not available.

U. S. Product Preferred: Although it is recognized among the trade in Venezuela that sanitary conditions surrounding the production of whole milk in the United States are superior, no complaints were heard regarding the quality of dry whole milk domestically produced. For delivery to the Indulac plant in San Carlos where most of the dry whole milk in Venezuela is made, the production of milk on farms is given increasingly careful attention.

There is almost constant assistance and inspection in this area by the plant management and by government inspectors. More frequent farm inspection was inaugurated in January 1959. In the receiving room at the plant a quality control program is carefully observed as the milk is taken in. Later, in the plant, the powder is sampled and tested as many as 40 times daily for solubility, mixability, acidity, moisture, and bacterial content.

Although the legal maximum concerning bacteria is 10,000 per gram, the plant management points out that the product has never exceeded 200 to 300 per gram. Similarly, brands of dry whole milk from Canada, the Netherlands, and Denmark were considered to be comparable in quality to U. S. brands. However, importers generally prefer handling U. S. brands. Because of the proximity to Venezuela, shipping charges from the United States are considerably less than from Europe and somewhat less than from certain ports from which Canadian powder might be shipped.

The shipping rate from any U. S. Atlantic or Gulf of Mexico port to Venezuela as of April 30, 1959, was $21.00 per short ton, by weight or measurement, plus a 3-cent-per-package tax imposed by Venezuela, collected in advance. Assuming that the Venezuelan tax is applied equally to shipments from any origin, the shipping rate as such would appear to be equal to 1.05 cents per pound.

From European ports, the rate per case of 5-pound cans, 6 to the case, as reported in Caracas in December 1958, was equal to approximately 3 cents per pound.

Shipments from eastern Canadian ports (including Montreal, Three Rivers, and Quebec) carry the same rate as from U. S. Atlantic and Gulf ports. From Great Lakes-St. Lawrence Seaway ports (e.g. Toronto, Cleveland, Toledo, Detroit, Chicago, and Milwaukee), the rate as of April 30, 1959, was $24.00 per ton, weight or measurement, plus the 3-cent-per-package Venezuelan tax.

Accordingly, exclusive of the Venezuelan tax, which is understood to apply equally, regardless of origin, the shipping rate from Atlantic and Gulf ports in the United States and eastern Canadian ports is 1.05 cents per pound, compared with about 3 cents per pound from European ports and 1.2 cents from selected Great Lakes ports served by the St. Lawrence Seaway.

Moreover, the time usually required en route from the United States is several days less than from European ports. Inasmuch as one U. S. line sends 2 ships per week to Venezuela, one going to Caracas and the other to Maracaibo, service in obtaining supplies is more prompt and less subject to weather interruptions en route.

Further reason for preference for U. S. dry whole milk is the always uniform, excellent product. A number of importers handle U. S. brands of many other U. S.-processed foods, and contend that on reasonably even price terms they would prefer to obtain their dry whole milk from U. S. exporters. Importers are aware that the United States has played an important role in developing the market for dry whole milk in Venezuela, and are reluctant to see this country lose a traditional market.

Dollar Exchange Plentiful: U. S. exporters are aware that Venezuela, with its large petroleum exports, is one of the few countries which has no dollar exchange problem. Its estimated gold reserves and dollar holdings on December 31, 1958, were $1.2 billion. This was considerably less than a year earlier, but more than twice the corresponding figure for any other Latin American country on that date.

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FD 10-59
July 1, 1959

MILK PRODUCTION AND UTILIZATION IN PRINCIPAL PRODUCING COUNTRIES, 1958

Total milk production in 18 of the world's primary producing countries increased again in 1958. This continues the upward trend of almost a decade.

Production of 374 billion pounds of milk in 1958 was about 1 percent more than the 372 billion in 1957. Although the gain indicates a slightly lower rate of increase than in most recent years, it is nonetheless significant because the total number of milk cows in the 18 countries was down about 1 percent from 1957.

In general, production was up in all areas except North America where it remained at the 1957 level. A slight decline in U. S. production (less than 1 percent) was offset by a 4-percent increase in Canada. Production per cow was up considerably in both countries as the number of milk cows on farms was significantly lower than in 1957; down 3 percent in the United States and about 1 percent in Canada.

Production in Western Europe was up about 1 percent, slightly more than the percentage increase in cow numbers. Significant gains were reported in West Germany and the Netherlands, up 4 and 5 percent respectively. The German increase was the result of higher yields per cow, while in the Netherlands, it was the result of good pastures and feed, and an increase in the cows milked. Greatest production declines were in the United Kingdom, Denmark and Ireland; there also were reductions in Norway and Sweden.

Production in Australia and New Zealand was significantly above the 1957 level in spite of reduced cow numbers. Widespread drought, particularly in Australia, significantly reduced production in that year, however. Production was up in these 2 countries by about 3 percent. Milk cow numbers were down about 2 percent from 1957.

COWS' MILK: Production and utilization in specified countries, 1958 (preliminary), 1957, and average 1951-55

Country	Production			Utilization					
	Milk cows	Production per cow	Milk production	Fluid milk 1/	Butter	Cheese	Canned milk	Other uses 2/	Feed
	1,000 head	Pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
1958:									
Canada	3,129	5,771	18,057	6,579	8,140	1,126	715	835	662
United States	19,784	6,330	125,236	60,500	30,989	13,368	5,906	11,582	2,891
Austria	1,142	5,306	6,063	2,284	1,991	381	9	318	1,080
Belgium	996	8,399	8,363	1,946	5,416	134	3/	3/ 186	681
Denmark	1,413	7,992	11,292	1,722	6,847	1,495	3/	3/ 688	540
Finland	1,135	6,178	7,012	2,917	3,473	395	---	54	173
France	9,848	4,771	46,989	9,540	18,871	8,666	3/	3/ 1,362	8,550
Germany, Fed. Rep. of	5,572	7,070	39,392	12,220	19,145	2,165	4/ 1,702	4/ 146	4,014
Greece	333	2,156	718	430	91	51	---	---	146
Ireland	1,257	4,916	6,180	1,174	3,832	51	3/	3/ 309	814
Italy 5/	3,575	5,327	20,589	5,811	3,370	5,800	44	25	5,539
Netherlands	1,522	9,040	13,759	2,458	4,443	4,182	1,281	568	827
Norway 6/	622	6,093	3,836	1,772	652	818	40	245	309
Sweden	1,384	6,254	8,655	3,014	4,119	847	7	210	458
Switzerland 6/	901	7,077	6,440	2,229	1,433	1,587	3/	3/ 133	1,058
United Kingdom	3,888	6,655	25,874	17,675	2,276	2,277	886	1,009	1,751
Australia	2,281	5,881	13,415	2,974	8,732	838	3/	3/ 789	82
New Zealand 7/	1,990	5,971	11,882	1,075	8,546	1,864	3/	3/ 135	262
Total	60,772	---	373,752	136,320	132,366	46,045	10,590	18,594	29,837
1957:									
Canada	3,147	5,499	17,306	6,468	7,392	1,197	731	870	648
United States	20,443	6,160	125,939	60,400	31,645	13,430	6,220	11,202	3,042
Austria	1,158	5,198	6,023	2,288	1,956	370	6	248	1,155
Belgium	976	8,403	8,201	1,982	5,250	150	3/	3/ 154	665
Denmark	1,449	8,130	11,781	1,627	7,690	1,347	3/	3/ 577	540
Finland	1,138	6,100	6,942	2,890	3,394	424	---	57	177
France	9,675	4,833	46,762	9,534	18,841	8,626	3/	3/ 1,362	8,399
Germany, Fed. Rep. of	5,641	6,746	38,058	12,555	17,346	2,258	4/ 1,684	4/ 154	4,061
Greece	328	2,098	688	412	85	46	---	---	145
Ireland	1,232	5,150	6,334	1,174	3,986	62	3/	3/ 319	793
Italy 5/	3,515	5,300	20,180	5,811	3,289	5,625	44	31	5,380
Netherlands	1,493	8,773	13,097	2,824	3,691	3,912	1,258	756	656
Norway 6/	630	6,100	3,894	1,759	849	697	40	240	309
Sweden	1,372	6,484	8,896	3,092	4,288	863	15	197	441
Switzerland 6/	891	7,099	6,402	2,233	1,330	1,622	3/	3/ 148	1,069
United Kingdom	3,891	6,806	26,481	17,438	2,513	2,729	927	1,123	1,751
Australia	2,354	5,639	13,274	2,919	8,607	863	3/	3/ 803	82
New Zealand 7/	1,998	5,641	11,270	1,059	7,963	1,850	3/	3/ 138	260
Total	61,331	---	371,528	136,465	130,115	46,071	10.925	18,379	29,573

COWS' MILK: Production and utilization in specified countries, 1958 (preliminary), 1957, and average 1951-55--(Continued)

Country	Production			Utilization					
	Milk cows	Production per cow	Milk production	Fluid milk 1/	Butter	Cheese	Canned milk	Other uses 2/	Feed
	1,000 head	Pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
1951-55 average:									
Canada	3,114	5,247	16,339	5,927	7,501	924	677	709	601
United States	21,462	5,557	119,259	55,700	30,453	12,760	6,353	10,640	3,353
Austria	1,168	4,568	5,336	2,554	1,621	317	3/	3/ 11	833
Belgium	957	8,120	7,771	1,774	4,959	147	36	5	850
Denmark	1,507	7,645	11,521	1,625	7,727	1,239	3/	3/ 372	558
Finland	1,159	5,304	6,147	2,613	2,880	454	---	4	196
France	8,889	4,281	38,051	8,566	15,068	6,039	3/	3/ 568	7,810
Germany, Fed. Rep. of	5,814	6,196	36,023	12,416	16,497	2,018	957	278	3,857
Greece 8/	236	2,212	522	314	66	37	---	---	105
Ireland	1,185	4,436	5,257	1,082	2,955	63	3/	3/ 415	742
Italy 5/ 8/	3,832	4,869	18,660	5,433	3,281	5,820	23	40	4,063
Netherlands	1,504	8,414	12,654	3,350	3,909	3,138	1,039	461	757
Norway 6/	700	5,092	3,603	1,734	675	615	3/	3/ 143	436
Sweden	1,553	6,329	9,829	3,477	4,813	904	3/	3/ 131	504
Switzerland 6/	891	6,724	6,071	2,336	1,173	1,391	3/	3/ 161	1,010
United Kingdom	3,674	6,328	23,250	17,363	1,185	1,641	703	649	1,709
Australia	2,236	5,598	9/ 12,518	2,717	8,057	980	305	459	---
New Zealand 7/	1,953	5,728	11,187	974	7,665	2,068	3/	3/ 183	297
Total	61,834	---	343,998	129,955	120,485	40,555	10,093	15,229	27,681

1/ Includes milk used for cream. 2/ Includes milk used for ice cream, dried whole milk, minor products, waste and balance, unless otherwise indicated. 3/ Canned milk included with other uses. 4/ Dried milk included with canned milk. 5/ Production and utilization include sheep and goat milk. 6/ Production and utilization include goat milk. 7/ Years ending June 30. 8/ Less than a 5-year average. 9/ Excludes milk fed to calves.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of agricultural attaches and other U. S. representatives abroad, and other information.

Uses of Milk

Although there were some rather sharp changes in individual countries, the aggregate pattern of milk utilization in 1958 changed very little from the previous year. Use of milk for fluid purposes was down slightly from 1957. Fluid use was down in the United States, West Germany, the Netherlands, Austria, Belgium and Sweden. With the exception of Denmark and Canada, where fluid use was up significantly, gains in use for this purpose scarcely matched population growth.

Use of milk for butter, the second major outlet, continued to rise, up about 2 percent in the aggregate - roughly twice the rate of increase in milk production. Largest increases in use for butter were in Canada, West Germany, the Netherlands, Belgium and Australia, countries in which total milk production increases were greatest. The countries reporting declines in milk production from 1957 also reported less use for butter. Since the quantity of milk used for butter tends to be residual relative to that for fluid use, the change in its use for butter in each country was by no means proportionate to the change in milk production. For example, in West Germany and the Netherlands where milk production in 1958 was up 4 and 5 percent, respectively, milk used in butter was up 10 and 20 percent, respectively.

For the first time in 3 years, whole milk used in cheese failed to show an increase, although there was an apparent rise in the use of part skim milk in cheese production. There were some wide variations in changes from a year earlier in individual countries, but whole milk used in cheese, in total, was about the same as in 1957. Ten countries reported declines, while more milk was diverted to cheese in 8. In Denmark, the Netherlands and Norway, milk diverted to cheese production increased 11, 7, and 17 percent,respectively.

Milk used for cheese was down 17 percent in the United Kingdom, and 11 percent in Belgium. A sizable reduction in domestic production of cheese was one of the several steps taken in the United Kingdom to help stabilize cheese prices on world markets. A decline of 4 percent in West Germany's use of milk for cheese likewise was accounted for by the low price of the imported product.

The total quantity of raw milk used in the combined production of canned milks, ice cream, dry whole milk and miscellaneous products, declined very slightly in 1958 from 1957, with increases in some countries a little less than offsetting decreases in others. Increases in Denmark, the United States and Austria failed to offset declines in the Netherlands, United Kingdom and Canada.

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FD 9-59
June 26, 1959

FILLED MILK REDUCES PHILIPPINE MARKET FOR U. S. EVAPORATED MILK

Canned filled milk, made from coconut oil and nonfat dry milk, has recently been rapidly displacing U. S. evaporated milk in the Philippine Islands.

The new product made its first appearance there in September 1957. It is currently being made in 2 plants, which began operations on the same day. A third plant, under construction, is expected to begin operations in the early fall.

The combined capacity of the plants producing filled milk is, or soon will be, great enough to supply the total needs of the Philippine market for unsweetened canned milk and a substantial proportion of the needs for sweetened canned milk. Whether this will occur depends upon the consumer desire for established brands of canned milk, and the recognized superiority of evaporated milk in infant feeding. These 2 factors may result in an indefinite continuance of an import demand at a sharply reduced level.

Total imports of evaporated milk into the Philippine market rose steadily in recent years until 1957, when they fell about 10 percent below 1956. In 1958, there was a sharp decline in imports, and a further substantial drop is likely for 1959. After 1960, imports of evaporated milk may be no more than 10 to 15 percent of the annual average for 1953-57 (approximately 135 million pounds). While U. S. brands may constitute nearly all of this total, their volume will nevertheless mean a drastic shrinkage in total U. S. exports of evaporated milk.

Indications point to development in the near future of a Philippine export interest in canned, unsweetened, and sweetened filled milk, after the domestic market has been fully supplied. The development of this new industry has had vigorous support from the Philippine Government in its drive to expand domestic industrial output, reduce needs for foreign exchange for imports and, where possible, increase earnings of foreign exchange through increased exports.

There are potential export markets in nearby Asian countries which traditionally have been large buyers of sweetened and unsweetened canned milk. Total exports of canned milk, chiefly sweetened condensed milk, to countries within easy shipping distance of Manila were approximately 375 million pounds in 1957. There are various restrictions on either or both the import and sale of canned vegetable-fat filled milk in many of these countries; however, the widespread availability of indigenous vegetable fat in this area makes it uncertain how long it will be before there is a substantial weakening of these restrictions.

This question is particularly important where proposals for domestic production of filled milk are made, and the problem of imports is thereby avoided. Nearly all countries in this area are under balance-of-payments pressure and would like to reduce foreign exchange expenditure by substituting domestic production, in whole or in part, for imports.

Historically, the Philippine Republic has been one of the world's largest buyers of canned milk, principally evaporated milk 1/. Traditionally, the largest supplier has been the United States. During the 5-year period 1953-57, annual imports of evaporated milk averaged about 135 million pounds.

The U. S. share of total Philippine imports of evaporated milk were 81 percent in 1954 and 74 percent in 1955. In 1957, the U. S. share declined to 73 percent, and in 1958 rose to 95 percent. Absolute quantities declined in 1958, however, both with respect to total imports and imports from the United States. (See table 1.)

TABLE 1.--Evaporated milk: Philippine imports, total and U. S., 1953-58

Year	Imports: Total	Imports: From the United States	United States share of imports
	1,000 cases 1/	1,000 cases 1/	Percent
1953	2,238	1,800	80
1954	2,678	2,172	81
1955	3,372	2,503	74
1956	3,814	2,842	75
1957	3,850	2,828	73
1958	2,428	2,296	95

1/ 48 cans (14-1/2 oz.).

The total market for unsweetened canned milk and canned 2/ filled milk in the Philippines appears to be still growing. Table 2 shows estimated imports of

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1/ Sweetened condensed milk is also imported in smaller, but still substantial, quantities.

2/ The term canned filled milk is used repetitively because of the availability of bottled filled milk in the Manila area and nearby cities.

evaporated milk, estimated production of canned filled milk, and estimated total disappearance of both products in the Philippine Republic from 1953 through 1958, with highly tentative estimates for 1959. Reliable data on stocks are not available; the data in table 2, therefore, are not estimates of actual production.

TABLE 2.--Philippine Republic: Estimated disappearance of imported evaporated milk and domestically produced canned filled milk, 1953-58, and tentative estimates, 1959

Year	Disappearance			Proportions	
	Total	Evaporated milk	Canned filled milk 1/	Evaporated milk	Canned filled milk
	1,000 cases	1,000 cases	1,000 cases	Percent	Percent
1953	2,238	2,238	--	100	--
1954	2,678	2,678	--	100	--
1955	3,372	3,372	--	100	--
1956	3,814	3,814	--	100	--
1957	4,150	3,850	300	93	7
1958	4,228	2,428	1,800	57	43
1959 2/	4,500	1,200	3,300	32	68

1/ Based on unofficial trade estimates.
2/ Provisional.

Canned filled milk, as produced in the Philippines, is made by combining refined coconut oil with reconstituted nonfat dry milk with an end-product composed of 6 percent fat and 20 percent nonfat solids. The total solids percentage, 26, is nearly identical with that of evaporated milk, which usually contains 7.8 or 7.9 percent milkfat and about 18 percent nonfat solids.

It has not been found possible to make a canned filled milk with coconut oil having a higher fat content than 6 percent without experiencing undesirable fat separation in the can. The can size used until recently contains 14 ounces with the same cylinder length as a 14 1/2-ounce can of evaporated milk, but with recessed end pieces.

Vigorous promotion and merchandising programs accompanied the introduction of the new product, and there has been vigorous sales promotion in the highly successful introduction of the product. Market penetration at first was confined to nearby urban areas, but soon rapidly expanded. In a short period, if not already, canned filled milk will be a common article everywhere in the Islands where commercial sale of food is feasible.

Marked consumer brand preferences have traditionally existed in the Philippine market for canned milk. Many consumers who cannot read either English or Spanish are familiar with label appearance of different brands of canned milk and have no difficulty in selecting the one preferred.

Brand preference is unusually strong, even in face of substantial price difference. For example, the retail price of the new canned filled milk was rather generally 25 centavos 3/ per 14-ounce can in the Manila area in the fall of 1957, compared with 35 to 40 centavos for the most popular brands and 25 to 35 centavos for the least popular brands of evaporated milk. The difference between 12.5 cents per can and 18 to 20 cents per can of milk is substantial, considering the relatively low purchasing power of Philippine consumers. Nevertheless, sales of the higher priced, leading brands of evaporated milk, on which large sums of money for advertising and promotion had been spent, held up rather well, despite the wide retail price differences.

Over the past 5 years, competition became increasingly severe, and the less popular brands were gradually squeezed out. By 1957, some brands and sources of supply were practically, or completely, out of the market. Vigorous competition between U. S. and Dutch brands of evaporated milk was the chief characteristic of the market. In 1958, competition was enhanced by greater resort to price cutting than in earlier periods. Import of Dutch brands of evaporated milk steadily increased from 1952 through 1957 from approximately 2.5 million pounds in 1952 to about 40 million pounds in 1957. Imports from the United States also increased substantially, from 72 million pounds in 1952 to approximately 125 million pounds in 1957. By 1957, U. S. and Dutch brands had almost the entire market. It was against this background that the new canned filled milk appeared on the market in September 1957.

A complicating factor was the growing activity of NAMARCO, the National Marketing Corporation, in the wholesale distribution of evaporated milk after 1955.

NAMARCO imports were exempt from the 10 percent ad valorem duty and an additional special 7-percent sales tax. Therefore, NAMARCO could substantially undersell importers who paid duty and special tax. By reason of the trade agreement between the United States and the Philippine Republic, importers of U. S. evaporated milk paid only 25 percent of full import duty up to January 1, 1959, and 50 percent of import duty from January 1, 1959, forward. On January 1, 1962, imports from the United States will pay 75 percent of full duty within the terms of this agreement.

The combined effect of introduction of the new canned filled milk and substantially increased imports of evaporated milk by NAMARCO in the fall of 1957 was to unsettle the entire market. Wholesale and retail prices on leading U. S. brands tended to hold firm at about 5 cents per can above the general 12.5 cents

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3/ Over the period 1957 to date, the official value of the Philippine peso has been very close to $0.50 (100 centavos equals 1 peso).

per can for filled milk. Some retailers supplied by NAMARCO cut prices down to 12.5 cents per can on some Dutch brands, and held at 14 to 16 cents on others. Prices varied little during the first half of 1958, and sales of canned filled milk expanded rapidly. Pressures were brought on the Central Bank to reduce dollar allocations for imports of evaporated milk. The balance-of-payments situation also worsened. There were delays in issuance of dollar allocations for imports of evaporated milk during the period June-September 1958. On or about October 1, the Central Bank restored agent bank authority for unrestricted dollar allocation for imports of evaporated milk.

As indicated in table 1, 1958 imports of evaporated milk were down sharply from 1957, partly because of a substantial carryover of NAMARCO stocks from fourth quarter 1957 to first quarter 1958. A much larger part of the decline can clearly be attributed to continued rapid growth of canned filled milk sales. It is reported that evaporated milk imports during January-April 1959 were 420,000 cases (about 16 to 17 million pounds) when allowance is made for cases of 6-ounce cans. NAMARCO has obtained Central Bank approval for imports of evaporated milk up to $5 million (700,000 to 800,000 cases). Imports in 1959 may reach 1.4 to 1.5 million cases, or only 58 percent as much as in 1958. Much of the reduced imports will be of U. S. origin.

Further reduction is likely in Philippine imports of evaporated milk beyond 1959. A third, canned filled-milk plant will probably open in September or October 1959, equipped to produce both unsweetened and sweetened canned filled milk. The rate of further substitution of canned filled milk for evaporated milk cannot be predicted with any certainty. The recognized superiority of evaporated milk in infant feeding will tend to hold part of this market for an indefinite period. How much of the market can be held, and for how long, will be determined by experience. It presently appears that this market will continue indefinitely at sharply reduced levels.

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FD 8-59
May 4, 1959

WORLD OUTPUT OF DAIRY PRODUCTS

FOURTH QUARTER AND ANNUAL, 1958

Fourth Quarter

Overall factory production of dairy products in the fourth quarter of 1958 was below the same quarter of 1957. There was considerable variation from a year earlier, however, even among countries within the same general geographic zone.

In Australia, conditions were favorable and the output of the principal products increased. In New Zealand, however, dry weather late in the quarter slowed up dairy production.

Conditions varied in Western Europe. In France, West Germany and Norway, where pasture and feed conditions were good, milk and dairy product output exceeded comparable 1957. Somewhat less favorable conditions reduced production in Denmark and Sweden. Factory output also declined in Switzerland and the United Kingdom. It was up in Canada but down in the United States.

Creamery butter output in the fourth quarter, 1958, dropped slightly from the same quarter of 1957, despite rises in the major producing countries of Australia, New Zealand, France, West Germany, Finland and Canada. Declines in the United States, the United Kingdom, Denmark, Argentina, the Netherlands and Ireland accounted for the net decrease.

The manufacture of factory cheese dropped 11 percent below a year earlier, but rose in Australia, the Netherlands, Denmark, Norway, Sweden and the United States. Sharp declines in the United Kingdom, Argentina, France and New Zealand accounted for most of the decrease.

This circular contains more detailed information than the summary of the same title published in the April 30, 1959, monthly supplement of Foreign Crops and Markets.

Overall canned milk (evaporated and condensed) production was down 2 percent, reflecting the U. S. drop which offset the heavier production of other countries.

Total dried milk production was 2 percent less than fourth quarter, 1957. Gains were reported in Australia, France, the Netherlands, and Canada, and declines in West Germany, Sweden, the United Kingdom and the United States.

Annual

Total milk production in the principal dairying countries apparently increased moderately in 1958 over a year earlier. In Australia, although dairy cow numbers were down for the first time in 5 years, milk production was slightly above 1957. Conditions were good in New Zealand most of the year and milk production was up.

Yields were higher in West Germany, largely because of the excellent feed supply, and milk production was at a postwar high. Favorable weather in the Netherlands resulted in good pastures and increased production of feed crops, and milk output showed a moderate gain. In Finland, good summer pastures and an exceedingly good feed crop caused an upsurge in milk production in the latter half of the year. Milk cow numbers were up and milk production set a record in Belgium.

Reduced milk production in Sweden, partly reflecting fewer cows, was caused by a drop of milk and butter prices and higher feed costs. Lower prices for milk in Denmark also reduced cow numbers and production. Good beef prices stimulated culling.

Harsh, cold weather sharply curtailed milk production in the United Kingdom and Ireland late in the year and held 1958 production in both countries below a year earlier. British cow numbers declined.

Higher milk production per cow both in the United States and Canada reflected in part a heavier culling rate, good pastures, plentiful feed and favorable milk-feed price ratios. As a result, 1958 milk production in Canada increased and was nearly maintained in the United States in spite of fewer cows.

Creamery butter production in 1958 rose 3 percent over comparable 1957, and varied considerably by countries. In Australia and New Zealand, some of the increased milk output went into butter. A similar situation existed in France. As fluid milk consumption did not rise in West Germany, much of the milk supply was diverted to butter, production of which rose sharply. Belgian and Dutch butter output was above a year ago. In Switzerland, where cheese inventories were heavy and the volume of milk for this product was curtailed, much milk was made into butter.

Lower milk production was reflected in less butter manufacture in Norway and Sweden. The quantity of milk used for butter in Denmark was reduced because of lower butter prices. Deliveries to creameries in Ireland were below a year earlier, reflecting the milk production decline. Use of fluid milk increased in the United Kingdom and the supply of milk for manufacturing was sharply curtailed.

Much of the greater milk production in Canada was used for butter. The smaller quantity of milk available for manufacturing in the United States in 1958 than a year earlier reduced butter output.

Cheese production in factories in 1958 rose about 1 percent over 1957, but changes varied sharply by countries. Output dropped in Australia and New Zealand. Supplies of milk for cheese were heavier in Denmark, France and the Netherlands in 1958 than in the preceding year. Cheese production also rose in Italy and Norway. In Belgium, a relatively small producing country, subsidies encouraged cheese production, especially hard varieties. Sharpest declines occurred in the United Kingdom, where production nevertheless was somewhat above average, and in New Zealand, Argentina and Canada. Moderate declines also occurred in Australia, Switzerland and Sweden. In the United States, 1958 output was about the same as a year earlier.

Canned milk (evaporated and condensed) production in 1958 was 2 percent less than 1957 output. France, West Germany, and the Netherlands reported production in excess of the earlier year. In the United Kingdom, output continued close to the 1957 level. Production of both evaporated milk and condensed milk declined in Canada and the United States.

Dried milk (both whole and skim) production during 1958 rose 4 percent over 1957. Australia's expansion was in dried whole milk; its nonfat dry milk production was somewhat below 1957. Dutch dried whole milk was down, but nonfat milk rose in line with the sharp increase in butter production. Heavier nonfat milk output also accounted for the increase in total dried milk production in Sweden. In Belgium, where milk drying plants were given government support, output of both types during 1958 ran well above 1957. In West Germany production of both types declined, partly because of the relative abundance of imported supplies.

Total dried milk output rose in Canada where nonfat production increased by over 50 percent for the second successive year. Overall U. S. output decreased slightly from 1957.

Current Conditions Abroad

Australia: Seasonal conditions currently are excellent and 1959 prospects for dairy production are good.

New Zealand: Prospects for the balance of the season are very good. Feed is plentiful and stock are in good condition.

Sweden: Milk production is expected to decline further in 1959 when cow numbers are expected to be smaller than in 1958.

United Kingdom: The lower level of commercial milk production in the latter half of 1958 has continued into 1959. This has been accompanied by an increase in fluid milk consumption with resultant smaller supplies for manufacturing.

DRIED MILK: Output by type in principal producing and exporting countries, 1958 with comparisons

Product and country	Average 1951-55	Total 1957	Total 1958	1958 as percent of 1957
	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Dried whole milk:				
Canada	18,373	23,088	19,713	85
United States	107,674	109,924	85,500	78
Belgium	677	1,942	9,306	479
Denmark	20,958	45,891	--	--
France 1/	2/ 27,800	3/ 33,100	3/ 79,300	240
Germany, West	28,767	23,492	20,865	89
Netherlands	57,605	99,427	74,736	75
Sweden	12,308	17,604	16,852	96
Switzerland	3/ 9,661	--	--	--
United Kingdom	47,623	69,104	63,840	92
Argentina 1/	19,073	23,538	24,477	104
Australia	39,797	39,912	44,144	111
Nonfat dry milk:				
Canada 4/	78,704	120,710	186,768	155
United States 5/	1,137,449	1,694,899	1,705,080	101
Belgium	28,020	55,467	56,497	102
Denmark	8,134	4,852	--	--
Germany, West	46,998	104,238	100,031	96
Netherlands	51,623	50,265	107,143	213
Sweden	11,762	21,543	22,917	106
Switzerland	3/ 6,741	--	--	--
United Kingdom	35,974	85,008	63,777	75
Australia	38,953	62,155	60,441	97

1/ Total dried milk production. 2/ Less than a 5-year average. 3/ Estimated. 4/ Approximately 1.8 to 2.0 million pounds of animal feed included in production data. 5/ Includes dry milk for animal feeding.

CANNED MILK: **Output by** type in principal producing and exporting countries, 1958, with comparisons

Product and country	Average 1951-55	Total 1957	Total 1958	1958 **compared with** 1957
	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Condensed milk:				
Canada	20,942	18,206	17,638	97
United States 1/	42,749	59,860	55,595	93
Cuba	54,671	73,321	--	--
Denmark	64,393	66,007	--	--
France	2/ 93,400	3/ 83,800	3/ 105,800	126
Germany, West 4/	352,627	629,228	664,206	106
Netherlands	305,460	312,171	317,903	102
Sweden 4/	2/ 6,110	13,164	9,140	69
Switzerland 4/	10,141	--	--	--
United Kingdom	131,779	175,504	3/ 171,800	98
Argentina 4/	18,811	22,787	26,888	118
Australia 4/	135,394	156,798	--	--
Evaporated milk:				
Canada	298,849	326,008	320,204	98
United States 1/	2,680,741	2,447,637	2,295,600	94
Cuba	865	13,657	--	--
Denmark	12,703	9,273	--	--
France	2/ 47,000	3/ 46,300	3/ 46,300	100
Netherlands	185,549	307,101	313,053	102
United Kingdom	150,752	232,400	3/ 237,140	102

1/ Case goods only. 2/ Less than a 5-year average. 3/ Estimated 4/ Total canned milk production.

FACTORY DAIRY PRODUCTS: Output in principal producing and exporting countries, Oct.-Dec., 1958 (preliminary) with comparisons

Country and product	Average 1951-55	Total 1957	Total 1958	1957	1958				Oct.-Dec., 1958 compared with Oct.-Dec., 1957
				Oct.-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	
	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	Percent
Butter:									
Canada	294,500	305,619	338,219	63,170	37,965	108,873	125,431	65,950	104
United States	1,327,009	1,412,843	1,386,095	300,139	361,510	425,610	311,360	287,615	96
Belgium	87,629	105,907	111,284	--	--	--	--	--	--
Denmark	370,549	384,923	347,004	83,114	83,334	103,396	86,420	73,854	89
Finland	102,364	158,811	164,309	31,261	32,284	47,379	48,382	36,264	116
France	1/ 479,000	2/ 623,900	2/ 661,400	2/ 218,100	2/ 110,200	2/ 176,400	2/ 144,100	2/ 230,700	106
Germany, West	629,612	685,392	792,207	161,575	179,909	230,669	205,351	176,278	109
Ireland	79,547	109,458	104,675	19,880	7,661	39,054	43,098	14,862	75
Netherlands	174,025	167,770	201,941	36,722	35,430	75,464	60,452	30,595	83
Norway	24,440	34,610	29,799	3,078	4,997	12,148	8,649	4,005	130
Sweden	209,896	193,399	190,127	37,992	38,920	58,631	57,923	34,653	91
Switzerland 3/	55,644	63,051	4/ 67,902	11,621	16,214	20,891	18,151	11,528	99
United Kingdom	29,434	76,160	66,640	15,456	18,592	31,360	13,440	3,248	21
Argentina	116,805	124,573	113,265	35,584	42,615	26,166	16,597	27,887	78
Union of So. Africa	69,026	85,165	--	26,291	26,455	16,297	15,514	--	--
Australia	367,731	397,069	402,413	145,226	105,130	56,479	82,593	158,211	109
New Zealand	422,182	468,234	488,083	198,307	140,627	48,315	98,229	200,912	101
Cheese:									
Canada 5/	79,735	99,036	90,510	17,865	7,719	30,142	35,430	17,219	96
United States	1,285,219	1,404,102	1,408,000	283,689	311,855	440,290	356,350	299,505	106
Denmark	184,437	215,830	236,333	43,430	48,501	75,177	63,493	49,162	113
France	647,500	2/ 705,500	2/ 771,600	2/ 261,700	2/ 176,400	2/ 224,900	2/ 182,400	2/ 187,900	72
Italy 6/	705,580	740,746	765,658	--	--	--	--	--	--
Netherlands	306,367	356,983	381,223	75,123	64,903	125,700	109,502	77,674	103
Norway 7/	64,777	68,270	78,967	10,948	14,665	27,190	23,379	13,733	125
Sweden	122,613	115,060	112,902	18,589	21,559	37,110	34,572	19,661	106
Switzerland 7/	124,207	139,772	4/ 136,024	25,939	24,023	37,576	41,979	23,903	92
United Kingdom 3/	148,758	255,584	213,248	54,880	54,880	79,296	51,520	27,552	50
Argentina	236,294	260,418	241,263	75,602	75,080	61,973	55,267	48,943	65
Union of So. Africa	23,806	26,068	--	8,005	7,309	4,677	5,792	--	--
Australia	98,912	85,810	83,959	30,941	15,947	10,549	21,950	35,513	115
New Zealand	228,824	217,135	197,119	92,804	65,184	21,250	32,108	78,577	85
Canned milk:									
Canada 8/	319,791	344,214	337,842	51,351	54,797	124,100	101,922	57,023	111
United States 9/	2,723,490	2,507,497	2,351,195	450,823	465,950	777,050	662,825	445,370	99
Cuba	55,536	86,978	--	--	--	--	--	--	--
Denmark	77,096	--	--	--	--	--	--	--	--
France	140,400	2/ 130,100	2/ 152,100	2/ 48,100	2/ 27,100	2/ 40,100	2/ 38,100	2/ 46,800	97
Germany, West	352,627	629,228	664,206	125,845	136,665	210,194	186,896	130,451	104
Netherlands	491,009	619,272	630,956	131,394	131,836	170,080	176,657	152,383	116
Switzerland	10,141	--	--	--	--	--	--	--	--
United Kingdom	282,531	407,904	2/ 408,940	63,392	73,248	149,856	105,056	2/ 80,780	127
Argentina	18,811	22,787	26,888	6,544	7,743	5,006	5,544	8,595	131
Australia	135,394	156,798	--	64,724	36,696	16,970	--	--	--
Dried milk 10/:									
Canada 11/	97,077	143,798	206,481	37,336	22,447	65,577	74,477	43,980	118
United States 12/	1,245,123	1,804,823	1,790,580	355,096	455,260	614,300	382,150	338,870	95
Belgium	28,697	55,467	65,803	--	--	--	--	--	--
Denmark	29,092	--	--	--	--	--	--	--	--
France	1/ 27,800	2/ 33,100	2/ 79,300	2/ 14,200	2/ 6,600	2/ 25,800	2/ 27,300	2/ 19,600	138
Germany, West	75,765	127,730	120,896	27,561	24,346	40,050	32,608	23,892	87
Netherlands	109,228	149,692	181,879	6,393	19,621	88,864	65,316	8,078	126
Sweden	24,070	39,147	39,769	5,539	7,493	15,056	12,039	5,181	94
Switzerland	16,402	--	--	--	--	--	--	--	--
United Kingdom	83,597	154,112	2/ 127,617	32,480	31,808	56,896	22,848	2/ 16,065	49
Argentina	19,073	23,538	24,477	8,237	7,800	4,106	3,896	8,675	105
Australia	78,750	102,067	104,585	39,642	22,785	10,483	22,156	49,161	124

1/ Less than a 5-year average. 2/ Estimated. 3/ Total production. 4/ Annual production figures more complete than monthly figures used in quarterly data. 5/ Cheddar cheese only. 6/ Total cheese, and includes cheese made from the milk of sheep and goats. 7/ Total cheese, and includes cheese made from the milk of goats. 8/ Both bulk and case goods. 9/ Evaporated whole and condensed whole case goods only. 10/ Dried whole milk and nonfat solids production. 11/ Approximately 1.8 to 2.0 million pounds of animal feed included in production data. 12/ Includes dry milk for animal feeding.

Foreign Agricultural Service. Prepared or estimated from official statistics, reports of Agricultural Attaches and other U. S. representatives abroad, and other information.

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PER CAPITA CONSUMPTION OF DAIRY PRODUCTS, 1956, 1957 AND INDICATED 1958

Summary

The overall average per capita consumption of dairy products in 1957, milk equivalent basis, exceeded that of a year earlier in the 17 milk-producing countries for which sufficient data is available. Although 11 of the 17 countries reported less consumption per person, sizable gains in several of the larger, more populous-countries of Europe more than offset these declines.

Per capita consumption of fresh fluid milk showed another moderate decline in 1957, but increased consumption of cheese alone was almost sufficient to offset this drop. Butter consumption, while showing a fractional decline (0.1 pound) on a product basis, showed a slight gain in terms of the amount of milk used for butter. Gains in consumption were predominantly in the more populous countries where more milk is used per pound of product, while the sharpest reductions were concentrated in less populated countries with lower conversion rates. Consumption of canned milk was down slightly from 1956; dried milk again registered a moderate gain.

Ireland continued as the leading consumer of dairy products per person, with an average whole milk equivalent consumption of 1,507 pounds in 1957. New Zealand and Finland were again in second and third place, respectively, with 1,416 and 1,265 pounds. (See Table 1.)

Finland, one of 5 countries to report a gain in fluid milk consumption, continued to rank first in per capita use of this product (see Table 2). New Zealand continued to be top-ranking butter consumer and Switzerland was again first in per capita consumption of cheese. Canada and the United States were the leading consumers of processed milk. Canada ranked first in per capita use of canned (evaporated and condensed) milk, and the United States was first in consumption of dry milk.

Indications for 1958

Consumption of dairy products in 1958 will show a substantial increase over 1957. Butter consumption will be considerably higher in Europe and will hold at about the 1957 level in North America. Consumption of cheese will show a rather general increase in all areas. Consumption of fluid and canned milks will show another moderate decline but dried milk will probably show further increase.

Milk production up, total and per capita:

Milk production in the 17 countries during 1957 totaled 370 billion pounds, about 2 percent above the 363 billion pounds produced in 1956. Although total production was higher in 15 of the 17 countries, only 12 countries showed a higher per capita level of output. The only country reporting a significant decline in production was Australia where severe drought caused milk production to drop about 9 percent below 1956. Production in New Zealand was down only about 1 percent from the high level of 1956.

Consumption of dairy products, milk equivalent basis, 1957:

Per capita consumption of milk and dairy products in 1957 was up from 1956. Aggregate consumption of dairy products, on a whole milk equivalent basis in the 17 countries included in this study, gained about 2 percent over 1956. The overall rate of population growth in these countries was slightly over 1 percent; thus the increase in consumption more than offset growth of population. Per capita consumption amounted to 724 pounds, 5 pounds more than in 1956.

The increase in consumption in 1957 was brought about primarily by a substantial increase in consumption of cheese and a high rate of butter consumption in several of the more populous countries of Western Europe. The greater use of cheese, an important component of the whole milk equivalent figure, was almost sufficient to offset another decline in consumption of fluid milk.

Fluid milk: Continuing the trend of recent years, per capita consumption of fluid milk was down slightly from 1956. Declines were reported in 12 of the 17 reporting countries. Sharp declines in fluid consumption were limited mostly to the smaller countries. In most of these there was a further reduction in milk consumption on farms, a trend in evidence since World War II. Farm sales of fluid milk direct to consumers continued to drop.

Only 5 countries reported gains in per capita consumption of fluid milk in 1957. Reflecting increased milk production, France and Italy reported modest gains in per capita consumption. Large absolute gains in per capita utilization were limited to the less populous countries; Denmark, Finland and Ireland. In these 3 countries, gains in consumption of fluid milk were partly a result of direct promotional activities sponsored by the government, the dairy industry, or both. Efforts to encourage consumption of fluid milk in these countries were mainly to divert milk from the manufacture of butter or cheese which were in surplus supply.

Butter: Despite some sharp gains in a few countries, per capita use of butter in 1957 failed to increase over 1956. Nine countries reported a decline in per capita consumption while 8 showed a gain. The 17-country average per capita consumption was 12.7 pounds for 1957 and 12.8 pounds for 1956. Despite the slight decline on a product basis, when converted to a whole milk equivalent, butter consumption reflects a modest gain over 1956. This is explained by the fact that the quantity of milk used per pound of butter produced varies considerably between countries. The sharpest changes on the downside were limited to the smaller or less populated countries, - Belgium, Finland, Ireland, Australia and New Zealand. Three of these countries have conversion rates that are among the lowest in the entire group. In contrast, some of the sharpest gains were in the more populous countries such as the United Kingdom and France. Gains were also recorded for Italy, West Germany and the Netherlands. With the exception of the United Kingdom, all of these countries have a high butter-to-whole-milk conversion rate.

Changes in consumption in 1957 were for the most part prompted by changes in butter prices and in the price ratio between butter and margarine.

In Finland high prices for butter, coupled with serious unemployment, contributed to another sharp drop in consumption - a decline of 4.0 pounds per capita. High domestic prices for butter appeared to be the major reason for declines in Belgium, Sweden, Austria and Ireland.

The sharpest gains in per capita consumption were in the Netherlands, the United Kingdom and France. There also were significant gains in West Germany, Denmark and Canada. In the United Kingdom, butter consumption exceeded that of margarine for the first time in the postwar period. Large supplies of high quality butter were imported from several European countries and retail butter prices reached a postwar low. Increased consumption in West Germany was likewise attributable mainly to larger imports of butter at reduced prices from nearby Denmark, Sweden and the Netherlands. In France where consumption was up by 1.8 pounds per person, production of creamery butter in 1957 reached a postwar high and butter was available during most of the year at prices somewhat below the previous year.

Cheese: With 10 of the 17 countries reporting gains in per capita consumption, there was a substantial increase (about 3.0 percent) in total consumption of cheese in 1957. As was the case in 1956, the largest gains in per capita consumption occurred in the smaller countries. Significant gains in several of the more populous countries, however - the United Kingdom and France in particular - were primarily responsible for the sharp increase in total utilization of cheese in 1957.

In several of the small surplus-producing countries, Denmark, the Netherlands and Sweden, price reductions, special sales promotion programs or both, were put into effect to encourage increased domestic consumption of cheese and helped reduce burdensome stocks.

TABLE 1.--MILK AND DAIRY PRODUCTS: Per capita production and consumption 1/ in 17 countries, 1956 and 1957 2/

Country	Production of fluid milk		Consumption											
			Total consumption in milk equivalent 3/		Fluid milk and cream		Butter		Cheese		Canned milk		Dried milk	
	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Austria 4/	825	867	655	632	347	337	9.2	9.6	5.2	5.7	0.3	0.4	1.9	0.9
Belgium	917	912	975	914	218	213	23.8	22.1	11.5	10.1	6.6	5.4	4.7	5.4
Denmark	2,499	2,610	842	884	342	361	19.4	20.2	14.8	15.6	5/ --	5/ --	5/ --	5/ --
Finland	1,580	1,621	1,336	1,265	645	656	31.9	27.9	5.6	5.3	5/ --	5/ --	5/ --	5/ --
France	916	1,009	721	785	206	211	14.3	16.1	15.4	16.9	2.0	1.8	0.8	0.7
Germany, West	717	722	713	712	256	238	15.5	16.0	9.6	9.7	10.3	11.8	2.2	2.9
Ireland	1,921	2,117	1,534	1,507	379	403	44.6	42.6	2.1	2.0	5/ --	5/ --	5/ --	5/ --
Italy 6/	407	418	314	326	114	120	3.2	3.5	15.5	15.2	7/0.4	0.5	5/ --	5/ --
Netherlands	1,177	1,180	668	711	329	291	6.4	9.0	16.1	16.8	8.2	10.5	4.6	6.4
Norway 4/	1,086	1,104	899	890	513	503	8.8	8.5	17.6	17.4	5/ --	11.7	5/ --	5/ --
Sweden	1,201	1,207	1,013	987	448	442	20.1	18.4	14.0	16.5	0.4	1.2	3.5	5.0
Switzerland 4/	1,249	1,251	980	968	452	441	14.5	14.3	17.8	17.9	2.0	2.9	3.4	5/ --
United Kingdom	501	516	764	819	342	340	15.2	17.5	9.3	10.6	6.7	5.9	5.1	4.2
Australia	1,544	1,380	1,023	1,003	304	303	29.4	28.0	5.6	6.1	8.4	10.2	4.2	5.1
New Zealand 8/	5,309	5,056	1,428	1,416	523	521	44.8	44.4	5.9	6.3	5/ --	5/ --	5/ --	2.2
Canada	1,062	1,031	1,012	1,014	450	445	19.5	20.2	6.4	5.7	20.3	19.8	5.4	5.6
United States	748	736	9/ 707	9/ 696	405	402	8.8	8.5	8.0	7.7	20.3	18.1	5.8	5.7

1/ Whole milk equivalent consumption of fluid cream and ice cream included with fluid milk.
2/ Preliminary.
3/ Fluid milk and dairy products in terms of whole milk equivalent.
4/ Includes goat milk.
5/ Not available, or not reported separately. A nominal figure for these two items has been included in total milk equivalent.
6/ Includes sheep and goat milk.
7/ Estimated.
8/ Years ending June 30.
9/ Includes milk equivalent for other uses; i.e. dry cream, cottage cheese, etc.

TABLE 2.--MILK AND DAIRY PRODUCTS: Relative position of 17 countries in per capita production and consumption, 1956 and 1957 1/

Country	Production of fluid milk		Consumption of --											
			Milk equivalent 2/		Fluid milk and cream		Butter		Cheese		Canned milk		Dried milk	
	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957
Ireland	3	3	1	1	9	7	2	2	17	17	3/ --	3/ --	3/ --	3/ --
New Zealand	1	1	2	2	2	2	1	1	13	12	3/ --	3/ --	3/ --	9
Finland	4	4	3	3	1	1	3	4	15	16	13	3/ --	13	3/ --
Canada	10	10	6	4	5	4	7	6	12	14	2	1	2	3
Australia	5	5	4	5	13	12	4	3	14	13	4	6	6	5
Sweden	7	7	5	6	6	5	6	8	7	5	10	11	7	6
Switzerland	6	6	7	7	4	6	11	12	1	1	9	9	8	3/ --
Belgium	11	12	8	8	15	15	5	5	8	9	7	8	3	4
Norway	9	9	9	9	3	3	14	15	2	2	3/ --	4	3/ --	3/ --
Denmark	2	2	10	10	10	9	8	7	6	6	3/ --	3/ --	3/ --	3/ --
United Kingdom	16	16	11	11	11	10	10	9	10	8	6	7	4	7
France	12	11	12	12	16	16	12	10	5	3	8	10	11	11
Germany, West	15	15	14	13	14	14	9	11	9	10	3	3	9	8
Netherlands	8	8	15	14	12	13	16	14	3	4	5	5	5	1
United States	14	14	13	15	7	8	15	16	11	11	1	2	1	2
Austria	13	13	16	16	8	11	13	13	16	15	12	13	10	10
Italy	17	17	17	17	17	17	17	17	4	7	11	12	12	3/ --

1/ Derived from Table 1.
2/ Fluid milk and dairy products in terms of whole milk equivalent.
3/ Not available.

In most countries, high levels of economic activity, coupled with lower cheese prices were factors contributing to increased utilization in 1957. In the latter part of the year top quality New Zealand and Australian cheese was quoted on the London Provision Exchange at around 16 cents per pound, wholesale. In countries such as the United Kingdom and West Germany where red meat prices are usually high, the low price of cheese made it an economical high animal protein food for the average consumer.

In the 7 countries reporting declines in per capita consumption from 1956, reductions were modest except in Belgium and Canada. A decline of 1.4 pounds per capita in Belgium and 0.7 pounds in Canada was caused mainly by protected high prices for domestically produced cheese.

Condensed and evaporated milk: Total consumption of canned milk in 1957 was down slightly from 1956. This decline reflected primarily another drop in consumption in the United States and a decline in the United Kingdom. The decline in consumption of about 0.5 pounds per person in the United States continues a trend in evidence for almost a decade. Factors contributing to reduced use of canned milk in the United States during the past several years are: increased consumption of nonfat dry milk; availability of more fresh milk in all areas; and changes in infant feeding practices. France and Belgium were the only other countries to report declines in consumption of canned milk.

Canned milk use in all other reporting countries in 1957 was up. There were significant gains in the Netherlands, West Germany and Australia. Increased consumption in the Netherlands was achieved by drawing on stocks, as total output of canned milk in that country was off about 10 percent from 1956. In all other countries reporting gains in per capita consumption domestic output of canned milk was up somewhat.

Dried milk: The upward trend in consumption of dried milk and milk products continued through 1957. Total consumption was up in 8 of the 10 countries for which data were available. Sizable gains in per capita consumption were reported in the Netherlands, Belgium, West Germany and Australia. Although year-to-year per capita consumption rates in the United States and Canada, the leading consumers of dried milk, have changed very little in the last 2 or 3 years, total consumption has continued to increase because of the rapid growth in population.

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GEORGE H. DAY APPOINTED CHIEF OF COMMODITY ANALYSIS BRANCH OF FAS DAIRY AND POULTRY DIVISION

George H. Day has been appointed Chief, Commodity Analysis Branch of the Foreign Agricultural Service's Dairy and Poultry Division to succeed Grover C. Chappell, who recently became Agricultural Attache in Tel Aviv, Israel.

Mr. Day will direct worldwide dairy and poultry analysis designed to assist in U. S. programs of production and marketing adjustment, of surplus disposal and of foreign market development. This is an important phase of the Department of Agriculture's efforts to promote stronger markets for U. S. farm products in foreign countries.

The new Branch Chief has had about 25 years of experience with the Department of Agriculture in the analysis and forecast of commodity supplies used in the planning of U. S. programs abroad. This work includes 8 months' experience as Chief, Foreign Marketing Branch of the Dairy and Poultry Division, 5 years as Agricultural Attache in Lima, Peru, and over 2 1/2 years as an international commodity specialist. Earlier related USDA experience includes work with the Dairy Division (then PMA), and with the then Bureau of Agricultural Economics.

Mr. Day has a degree of Master of Business Administration, University of Washington, and has had additional training in agricultural economics and statistical analysis at the Brookings Institute and with the U. S. Department of Agriculture Graduate School.

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PER CAPITA CONSUMPTION OF DAIRY PRODUCTS, 1955, 1956, AND INDICATIONS FOR 1957

Summary

Per capita consumption of milk and dairy products on a whole milk equivalent basis was down in 1956, in the major dairy countries. This decline, although slight, interrupts 3 consecutive years of gains in consumption and occurred when milk production was higher and stocks of dairy products were increasing. The decline in 1956 was due chiefly to lower per capita consumption of fluid milk and butter. Consumption of cheese and of canned and dried milk showed gains over the 1955 levels. On a milk equivalent basis, consumption in 1957 will be about the same as in 1956. Fluid milk will show another decline, but this may be more than offset by increased consumption of butter and cheese.

In 1956, Ireland again showed the largest per capita consumption of dairy products with a whole-milk equivalent consumption of 1,534 pounds per person (see table 1). New Zealand ranked second and Finland, using less fluid milk and butter, dropped to third place.

Finland consumed the most fluid milk in 1956, and New Zealand the most butter per capita. Switzerland continued first in per capita consumption of cheese. The United States was again ranked first in per capita consumption of processed milks, with Canada a close second (see table 2).

Indications for 1957

Available data indicate that, for 1957, per capita consumption of fluid milk will show another decline. Per capita consumption of butter will be up slightly, because of a sharp gain in the United Kingdom and a substantial rise in West Germany. Slight gains were reported for Canada, Austria, and Denmark. In France and Italy, consumption was about the same as in 1956. In nearly all of the remaining 10 countries, per capita consumption of butter will be down.

Consumption of cheese will show a decided increase. With increased production and lower prices to consumers prevailing in several important areas, per capita gains will be registered in some 10 or 12 countries.

Consumption of canned and dried milk was down in the United States and Canada. Declines in consumption of processed milk in these two countries will probably offset slight gains in some of the small countries.

On a milk equivalent basis, 1957 consumption will be about the same as in 1956. Gains in consumption of cheese and butter may more than offset a rather general decline in consumption of fluid milk.

Consumption of dairy products, milk equivalent basis, 1956

Per capita consumption of milk and dairy products in 1956 was down slightly from 1955, after 3 successive years of gains in the primary dairy countries. While aggregate consumption of dairy products in these countries, in terms of whole milk equivalent, was about 1 percent larger than in 1955, the gain did not keep pace with population. Per capita consumption in the 17 countries included in this study amounted to 719 pounds, or 2 pounds less than in 1955.

Total milk production in 1956 was up, in contrast to the situation in 1955, when aggregate consumption increased despite a decline in production. Production in the 17 countries amounted to 363.3 billion pounds, compared with 357.0 billion in 1955. Output was back to normal in continental Europe, where drought reduced it in 1955. Increases in the United States, United Kingdom, Australia, and New Zealand were primarily responsible for the gain in total production.

The consumption drop in 1956 was caused mainly by less use of fluid milk and butter, major components of the total milk equivalent figure. Consumption of cheese and canned and dried milk increased over 1955.

Ireland was the leading per capita consumer of dairy products in 1956, with 1,534 pounds, a gain of 34 pounds from 1955. About 98 percent of this composite consumption figure is derived from the butter and fluid milk items, with butter accounting for about 75 percent of the total. Ireland ranks last in per capita consumption of cheese, and its use of other processed dairy products is negligible.

While fluid milk and butter are primary factors in the consumption figures for all countries, there are wide differences in the relative importance of these items. In Italy, cheese is far more important than butter in the consumption pattern, accounting for 38 percent of the total consumption figure for 1956. In the Netherlands, Switzerland, Norway, and France, cheese, canned and dried milk make up 20 percent or more of the total milk equivalent consumption figure.

Fluid milk: Although the total volume of fluid milk consumed in 1956 was larger than in 1955, the increase was not sufficient to offset population growth; and per capita consumption, including the whole milk equivalent of ice cream, was slightly below 1955. Declines in per capita consumption were reported in 10 of the 17 countries included in this study. In most instances, changes were minor. The exceptions were mainly in the smaller countries--Finland, Austria, Denmark, and Sweden.

In most of the countries reporting substantial declines, there was a pronounced reduction in milk consumption on farms. This reflects a continuation of the downward trend in farm population in many countries. Farm sales of fluid milk direct to consumers also were down. As a result, a larger percentage of total milk supplies moved through processing establishments.

Increased consumption of fluid milk was, in a few countries, a result of direct efforts in this direction, sponsored by the government, the dairy industry, or both. Promotional activities, accompanying increased production, appear to have been a factor in increased fluid consumption in Belgium, Ireland, and the Netherlands.

Butter: Per capita consumption of butter in 1956 was down slightly from 1955. There were consumption gains in 8 of the 17 countries; 7 countries reported declines, and in 2 countries there was no change. Although this comparison suggests that gains and losses were fairly evenly divided, total butter consumption in 1956 was roughly 1 percent below the previous year. Comparative per capita consumption figures were 12.8 pounds for 1956 and 13.1 pounds for 1955, a decline of 2 percent.

With 2 exceptions, changes in per capita consumption, plus or minus, were moderate, with the sharpest changes being on the downside. In Finland, several factors--higher prices for butter, considerable unemployment, and propaganda in favor of margarine--caused a sharp drop of 5.8 pounds per capita in butter consumption, and there was a severe decline of 3.3 pounds per capita in Sweden. The latter drop was attributed mainly to artificially higher prices for butter and a resultant shift to margarine.

The most significant increase in per capita consumption of butter occurred in the United Kingdom, where the gain was 0.6 pounds per capita over 1955. Throughout most of 1956 ample supplies of good quality butter were available to consumers in the United Kingdom at lower prices than in 1955.

Other countries where per capita consumption increased about one-half pound were Denmark, Ireland, Switzerland, and New Zealand. Lesser gains were recorded in Austria and Canada. In most of these countries, butter prices on the domestic market were slightly lower than in the previous year.

The absolute level of consumption of a specific dairy product in the countries included in this study primarily indicates the importance of that product in the consumption pattern of the individual country. Comparison of consumption levels, between countries, for all dairy products must also be made with care. The continuing high level of butter consumption in New Zealand (45.1 pounds per person) is attributable mainly to a fixed, low retail price for butter and partially to the fact that the numerous vegetable oils which constitute an important part of consumer diets in many countries, have not, historically, been readily available in New Zealand. For example, in 1956, in addition to a per capita consumption of 19.5 pounds of butter, Canada consumed about 8.0 pounds of margarine per capita. If consumption of all fats in Canada and New Zealand is adjusted to a fat-content basis, per capita consumption in Canada totals 43 pounds, 21.0 pounds of which is made up of fats other than butter and margarine. In New Zealand, consumption of all fats totals 45 pounds per capita, 41 pounds of which are from butter and margarine.

Total fat consumption in 1956 was about 53 pounds per person in Denmark and Norway and 51 pounds in the Netherlands. Margarine is the dominant fat item in the diet in these high-fat consuming countries. Although Denmark ranked eighth in consumption of butter in 1956 (see table 2) with 19.4 pounds per capita, margarine use amounted to about 44 pounds. In Norway, margarine consumption was over 50 pounds. Consumption of fats other than butter and margarine in these two countries in 1956 made up only about 10 percent of total per capita fat consumption. In the Netherlands, margarine consumption was 42 pounds per person, and butter consumption only 6.6 pounds; but lard and other fats are more important there, accounting for about one-third of total fat consumption.

Cheese: Since 4 of the 10 countries reporting gains in per capita consumption of cheese were the most populous in the group, there was a noticeable gain (2.5 percent) in total consumption of cheese in 1956 over 1955. Although the largest absolute gains in per capita consumption occurred in the smaller countries of Belgium, Denmark, the Netherlands, and Norway, gains in the United States, the United Kingdom, Germany, and France assured increased total utilization of cheese in 1956.

In most countries, larger supplies of cheese, coupled with high levels of economic activity appear to have been the primary factors contributing to increased utilization in 1956. For example, in the United Kingdom, while cheese imports were being maintained at a level somewhat above 1955, the total supply of cheese was augmented by a 59-percent increase in domestic output, and price premiums for U. K. cheese over New Zealand cheese, by mid-1956, had largely disappeared.

In the 7 countries reporting declines in the per capita rate of consumption from 1955, reductions were moderate. Numerous factors, such as administered price increases for dairy products, unsanitary conditions in processing plants, and lower production were cited as possible explanations for the declines.

Custom and tradition are important in determining consumption rates for individual products, and most countries that maintain a high rate of cheese consumption tend to be low in the consumption of butter, and vice versa. The Netherlands and Italy rank third and fourth in cheese consumption and sixteenth and seventeenth in butter consumption. Cheese consumption is very low in the leading butter-consuming countries, New Zealand, Ireland, and Finland. Denmark, where consumption of both butter and cheese is high, is an exception.

Condensed and evaporated milk: Total consumption of canned milk in 1956 increased somewhat over 1955. Despite a slight decline in per capita consumption in the United States, population growth more than offset the decline, and total use increased over 1955. In all other reporting countries where canned milks are of any particular significance in the total milk consumption pattern, 1956 per capita consumption was above 1955.

Sizable absolute gains in per capita consumption were reported only in Belgium and the Netherlands. There were smaller but equally significant per capita gains in Germany and the United Kingdom.

There was a considerable increase in the domestic output of canned milk in all of the foregoing countries reporting gains in per capita consumption.

Dried milk: The gradual upward trend of the past several years in consumption of dried milk products in the countries covered in this study continued through 1956. Although per capita rates of consumption in the leading countries--the United States and Canada--were unchanged from 1955, there were gains in total consumption in all other countries for which data are available.

Accompanying a 55-percent increase in local output, per capita consumption of dried milk was up in the United Kingdom by 2.0 pounds over 1955. An increase of 0.5 pounds per capita in the Netherlands in 1956 was likewise attributable to a substantially larger production of dried milks, which was not accompanied by a comparable increase in exports.

TABLE 1.—MILK AND DAIRY PRODUCTS: Per capita production and consumption 1/ in 17 countries, 1955 and 1956 2/

Country	Production of fluid milk		Consumption											
			Total consumption in milk equivalent 3/		Fluid milk and cream		Butter		Cheese		Canned milk		Dried milk	
	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Austria 4/	801	793	675	655	375	347	10.3	10.4	5.0	5.2	0.3	0.3	0.7	1.9
Belgium	920	917	977	975	213	218	24.2	23.8	10.8	11.5	5.3	6.6	4.5	4.7
Denmark	2,545	2,499	867	842	375	342	19.0	19.4	14.3	14.8	5/	5/	5/	5/
Finland	1,485	1,580	1,511	1,336	695	645	37.7	31.9	5.7	5.6	5/	5/	5/	5/
France 6/	919	916	724	721	193	206	14.8	14.3	15.3	15.4	1.8	2.0	0.5	0.8
Germany, West 4/	733	726	707	704	263	254	15.2	15.2	9.3	9.5	9.5	10.2	1.9	2.2
Ireland	1,901	1,921	1,500	1,534	374	379	44.0	44.6	2.4	2.1	5/	5/	5/	5/
Italy 6/	405	407	319	314	115	114	3.2	3.2	16.0	15.5	0.4	7/ 0.4	0.4	7/ 0.4
Netherlands	1,170	1,177	647	668	319	329	6.6	6.4	15.3	16.1	7.9	8.2	4.1	4.6
Norway 4/	1,054	1,086	916	899	522	513	9.3	8.8	17.2	17.6	5/	5/	5/	5/
Sweden	1,250	1,201	1,081	1,013	468	448	23.4	20.1	14.3	14.0	0.6	0.4	2.9	3.5
Switzerland 4/	1,245	1,249	983	980	461	452	14.0	14.5	18.2	17.8	1.2	2.0	2.8	3.4
United Kingdom	467	501	747	764	344	342	14.6	15.2	9.0	9.3	6.0	6.7	3.1	5.1
Australia	1,522	1,544	1,028	1,023	303	304	30.0	29.4	5.2	5.6	7.1	8.4	3.6	4.2
New Zealand 8/	5,231	5,309	1,418	1,428	524	523	44.5	45.1	6.0	5.9	5/	5/	5/	5/
Canada	1,109	1,062	1,006	1,012	446	450	19.3	19.5	6.7	6.4	20.1	20.3	5.4	5.4
United States	746	748	9/ 707	9/ 707	400	405	8.9	8.8	7.8	8.0	20.7	20.3	5.8	5.8

1/ Whole milk equivalent consumption of ice cream and fluid cream included with fluid milk.
2/ Preliminary.
3/ Fluid milk and dairy products in terms of whole milk equivalent.
4/ Includes goat milk.
5/ Not available, or not reported separately. A nominal figure for these two items has been included in total milk equivalent.
6/ Includes sheep and goat milk.
7/ Estimated.
8/ Years ending June 30.
9/ Includes milk equivalent for other uses; i.e. dry cream, cottage cheese, etc.

TABLE 2.—MILK AND DAIRY PRODUCTS: Relative position of 17 countries in per capita production and consumption, 1955 and 1956 1/

Country	Production of fluid milk		Consumption of --											
			Milk equivalent 2/		Fluid milk and cream		Butter		Cheese		Canned milk		Dried milk	
	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956	1955	1956
Ireland	3	3	2	1	10	9	2	2	17	17	3/	3/	3/	3/
New Zealand	1	1	3	2	2	2	1	1	13	13	3/	3/	3/	3/
Finland	5	4	1	3	1	1	3	3	14	15	13	13	13	13
Australia	4	5	5	4	13	13	4	4	15	14	5	4	6	6
Sweden	6	7	4	5	5	6	6	6	6	7	10	10	7	7
Canada	9	10	6	6	6	5	7	7	12	12	2	2	2	2
Switzerland	7	6	7	7	4	4	12	11	1	1	9	9	8	8
Belgium	11	11	8	8	15	15	5	5	8	8	7	7	3	3
Norway	10	9	9	9	3	3	14	14	2	2	3/	3/	3/	3/
Denmark	2	2	10	10	9	10	8	8	7	6	3/	3/	3/	3/
United Kingdom	16	16	11	11	11	11	10	10	10	10	6	6	5	4
France	12	12	12	12	16	16	11	12	4	5	8	8	11	11
United States	14	14	13	13	7	7	15	15	11	11	1	1	1	1
Germany, West	15	15	14	14	14	14	9	9	9	9	3	3	9	9
Netherlands	8	8	16	15	12	12	16	16	5	3	4	5	4	5
Austria	13	13	15	16	8	8	13	13	16	16	12	12	10	10
Italy	17	17	17	17	17	17	17	17	3	4	11	11	12	12

1/ Derived from table 1.
2/ Fluid milk and dairy products in terms of whole milk equivalent.
3/ Not available.

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U. S. EXPORTS OF DAIRY BREEDING CATTLE

CALENDAR YEARS 1957 AND 1958

U. S. exports of dairy cattle for breeding were reduced sharply in 1958 compared with 1957, because of decline of imports by Mexico, Venezuela and Cuba. Prospects point to an appreciable recovery in this trade in 1959, however. In Mexico and Venezuela, programs to develop dairying, with adequate financing - including Export-Import Bank loan provisions for Mexico, should stimulate dairy cattle imports. Exports of U. S. dairy cattle to Cuba should be resumed in volume following a re-establishment of political and economic stability.

The number of U. S. dairy breeding cattle reported as inspected for export declined from 12,261 head in 1957 to 7,216 in 1958, a reduction of 41 percent. The decline in the last half of the year compared with the corresponding period in 1957 was somewhat less, however, amounting to about 30 percent. Such data were first available in 1957. 1/

Separate data on exports of dairy cattle for breeding were available from the U. S. Department of Commerce for the first time for the calendar year 1958. Although preliminary monthly data are not yet necessarily complete, nor comparable with numbers reported as inspected for export used elsewhere in this Circular, these data indicate that 6,131 head of such cattle, valued at $2,378,000, an average value of about $390 per head, were exported in 1958. These data are not available by breed, age or sex.

The relative numbers of head inspected for export, either by totals or by categories, in the 2 years are not necessarily indicative of longterm trend. However, certain comparisons by sex and age groups are of interest. (See Tables 1 and 2.) Mature dairy cows (over 2 years of age) represented the

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1/ These data are not necessarily complete, but they are believed to be reasonably though only approximately comparable.

bulk of all exports in both years, but they declined as a percentage of the grand total from 72 percent in 1957 to 66 percent in 1958. Total female stock declined from 11,211 in 1957 to 6,417 in 1958, a drop of 43 percent. Males, which represent a relatively small part of the total, declined from 1,050 in 1957 to 799 in 1958, a reduction of only 23 percent.

Changes in exports by age groups give preliminary but consistent indications of a shift to lighter, younger animals for export. Among females the portion of the total under 2 years increased from less than 22 percent in 1957 to over 26 percent in 1958. Among males the comparable increase was from barely 74 percent in 1957 to 87 percent in 1958. Bull calves, under 1 year old, increased from about 30 percent in 1957 to over half of all males inspected in 1958. This category was the only one showing an absolute increase in numbers (318 head in 1957, 404 in 1958). The trade reports that the export of younger, lighter animals not only sharply reduces per unit freight costs, especially if moved by air, but appreciably increases the adaptability of the animals to their new environment.

In terms of the principal importing countries by number inspected, Mexico continued to be first in destination, but the numbers it took declined from 7,431 head in 1957 to 3,510 in 1958. Venezuela was second, taking 1,290 and 1,067 head, respectively, in 1957 and 1958. Exports to Cuba declined sharply from 1957 to 1958, while increased imports to Canada, especially of Brown Swiss and Holsteins, placed that country third in importance in 1958. Inspections for the Dominican Republic, West Germany, and Turkey also exceeded those for Cuba in 1958. (See Table 3)

There was a decline in total inspections for export in all five major U. S. dairy breeds.

Ayrshires dropped from 106 head in 1957 to 48 in 1958, a reduction of nearly 55 percent. The biggest declines were in shipments to Mexico and West Germany, which, combined with smaller exports to Venezuela and other countries, somewhat more than offset the effect of a relatively sharp increase to Canada, and the shipment of 21 head to Ecuador where no Ayrshires were reported destined in 1957. (See Table 1) New York and Wisconsin were the principal states of origin.

Inspections of Brown Swiss dropped from 2,440 head in 1957 to 1,188 in 1958, a reduction of over 51 percent. Biggest declines, by country of destination, were Mexico and Cuba, while Venezuela, the heaviest importer in 1958, also moderately reduced its purchases. There were also appreciable declines in inspections for Ecuador and Nicaragua. There were, however, sharp increases to Canada, Dominican Republic, Peru and Turkey and appreciable shipments to Italy. Principal states of origin were Ohio, New York, Wisconsin, Illinois, Texas, Florida, and Montana, in approximately that order.

Inspections of Guernseys declined from 595 head in 1957 to 275 in 1958, a reduction of about 54 percent. Sharp declines by country of destination occurred for Canada (which remained the principal importer), Mexico and Cuba. There was a moderate decline for West Germany but an increase to the Dominican Republic. The principal states of origin for Canada's Guernseys were

Washington, Montana, New York, Minnesota, and New Jersey. West Germany imported mainly from Pennsylvania, Ohio, Iowa, and Massachusetts. Texas shipments were destined to Mexico and the Dominican Republic while South Carolina supplied most of the limited number of Guernseys for Cuba.

Inspections of Holstein's declined from 8,222 head in 1957 to 5,054 in 1958, a reduction of over 38 percent. By country of destination, the effect of a sharp decline for Mexico, the principal importer, and for Cuba, more than offset heavily increased takings by Canada, the Dominican Republic and Turkey. Venezuela and West Germany continued to take large, although moderately decreased numbers. Principal states of origin were Wisconsin, Minnesota, California, New York, Ohio, Texas, Illinois, Florida, Washington, and Pennsylvania, in about that order. Holsteins from Wisconsin, Minnesota, New York, Ohio and Washington were destined both to temporate (Canada and Germany), and subtropical (Mexico and Venezuela) climates. Most of the shipments from California, Texas and Florida were destined for tropical and subtropical climates (Mexico, Cuba and Dominican Republic). Illinois and Pennsylvania made heavy shipments to Mexico, Venezuela or Turkey.

Inspections of Jerseys declined from 874 head in 1957 to 620 in 1958, a reduction of slightly less than 30 percent. By countries of destination, the effect of sharp declines for Mexico, Cuba and Venezuela more than offset increases for Turkey, El Salvador, West Germany, and Japan. There also were moderate-to-heavy declines for Canada, Guatemala, and a few other countries. Heavy shipments of Jerseys to Greece (there were none in 1957) made that the leading country of destination in 1958. Inspection data received too late for inclusion in the tables reveal shipments of 20 head to Peru in 1958.

Shipments of Jerseys to Greece originated in Ohio, Pennsylvania, Michigan, Kansas, California, Connecticut, and 3 other states. Ohio also made appreciable shipments to other countries including Turkey, Canada, and West Germany; Pennsylvania to El Salvador and West Germany; and Connecticut to Canada and El Salvador. Maryland was the origin of Jerseys for El Salvador and Turkey; New Jersey for El Salvador and Canada; and Virginia for El Salvador and West Germany. Shipments to Mexico originated mainly in Texas and California.

TABLE 1.—Breeding cattle, dairy: Inspections for export from the United States by breed, country of destination, age, and sex, 1957 and 1958

Year, breed and country of destination	Male				Female				Total
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1957
1957:	Head	Head	Head	Head	Head	Head	Head	Head	Head
Ayrshire:									
British Honduras	—	—	1	1	—	—	—	—	1
Canada	4	—	1	5	—	—	—	—	5
Colombia	1	3	—	4	—	—	—	—	4
Cuba	—	—	—	—	2	2	2	6	6
El Salvador	—	—	1	1	—	—	5	5	6
Germany, West	—	—	—	—	1	8	24	33	33
Mexico	3	7	4	14	2	5	17	24	38
Venezuela	—	—	—	—	—	—	13	13	13
Total	8	10	7	25	5	15	61	81	106
Brown Swiss:									
Austria	—	—	—	—	—	1	—	1	1
Bahamas	—	—	1	1	—	—	—	—	1
Brazil	—	1	—	1	—	4	—	4	5
Canada	1	—	3	4	2	4	20	26	30
Cuba	9	19	6	34	66	136	204	406	440
Dominican Republic	1	—	1	2	—	9	38	47	49
Ecuador	—	3	1	4	—	19	49	68	72
El Salvador	—	1	1	2	2	—	35	37	39
Germany, West	—	—	—	—	—	1	6	7	7
Guatemala	4	5	4	13	41	9	4	54	67
Honduras	—	—	—	—	1	—	—	1	1
Mexico	28	127	61	216	46	313	386	745	961
Morocco	—	—	—	—	—	—	1	1	1
Nicaragua	—	15	5	20	—	—	64	64	84
Panama Republic	—	—	2	2	—	—	—	—	2
Peru	1	3	1	5	—	2	6	8	13
Turkey	7	—	—	7	1	—	—	1	8
Venezuela	34	59	25	118	115	53	373	541	659
Total	85	233	111	429	274	551	1,186	2,011	1/ 2,440
Guernsey:									
Austria	—	—	—	—	—	13	—	13	13
Bahamas	—	—	—	—	—	1	13	14	14
Brazil	1	—	—	1	1	1	—	2	3
Canada	36	5	9	50	22	18	103	143	193
Colombia	2	1	—	3	—	—	—	—	3
Cuba	—	—	—	—	18	12	24	54	54
Dominican Republic	—	—	—	—	—	—	2	2	2
Ecuador	1	—	—	1	1	2	1	4	5
El Salvador	—	—	—	—	—	—	1	1	1
Germany, West	—	—	—	—	2	21	76	99	99
Mexico	8	5	1	14	21	16	68	105	119
Morocco	—	—	—	—	—	—	1	1	1
Nicaragua	—	5	2	7	—	6	33	39	46
Panama Canal Zone	—	1	—	1	—	—	—	—	1
Venezuela	2	1	1	4	2	35	—	37	41
Total	50	18	13	81	67	125	322	514	595
Holstein:									
Argentina	3	2	2	7	—	—	3	3	10
Austria	—	—	—	—	—	10	3	13	13
Bahamas	—	—	—	—	—	—	6	6	6
Brazil	—	1	—	1	1	2	—	3	4
British Guiana	8	—	—	8	12	—	—	12	20
British Honduras	1	—	—	1	—	2	21	23	24
Canada	32	6	12	50	29	5	40	74	124
Chile	3	—	—	3	—	—	2	2	5
Colombia	1	—	1	2	—	—	—	—	2
Costa Rica	—	1	—	1	—	—	1	1	2
Cuba	4	8	5	17	5	39	467	511	528
Dominican Republic	1	—	—	1	33	15	40	88	89
Ecuador	—	8	—	8	2	19	—	21	29
El Salvador	—	—	7	7	—	16	52	68	75
Ethiopia	2	—	—	2	—	—	—	—	2
Germany, West	—	—	—	—	—	36	186	222	222
Greece	—	1	—	1	—	—	—	—	1
Guatemala	—	5	—	5	—	2	79	81	86
Honduras	1	—	—	1	—	—	—	—	1
Israel	4	7	—	11	—	3	3	6	17
Italy	1	2	—	3	—	—	—	—	3
Japan	3	—	3	6	—	3	15	18	24
Korea	—	—	—	—	—	—	26	26	26
Mexico	42	105	91	238	234	402	5,180	5,816	6,054
Morocco	—	—	—	—	—	—	2	2	2
New Zealand	1	1	1	3	—	—	—	—	3
Panama Canal Zone	1	2	1	4	—	—	—	—	4
Panama Republic	1	—	—	1	—	—	—	—	1
Peru	3	4	1	8	—	125	208	333	341
Turkey	6	—	—	6	8	—	—	8	14
Uruguay	1	2	—	3	—	—	—	—	3
Venezuela	3	23	7	33	46	17	391	454	487
Total	122	178	131	431	370	696	6,725	7,791	8,222
Jersey:									
Argentina	2	—	—	2	—	—	—	—	2
Austria	—	—	1	1	—	2	9	11	12
Canada	10	3	5	18	5	13	41	59	77
Costa Rica	2	—	—	2	—	—	—	—	2
Cuba	3	1	1	5	19	105	106	230	235
Ecuador	—	—	—	—	10	—	—	10	10
El Salvador	—	3	2	5	5	—	30	35	40
Germany, West	—	—	—	—	—	9	17	26	26
Guatemala	8	—	—	8	13	16	—	29	37
Japan	4	—	—	4	—	10	3	13	17
Korea	—	—	—	—	—	—	1	1	1
Mexico	3	2	2	7	17	30	205	252	259
Morocco	—	1	—	1	—	1	1	2	3
Nicaragua	—	—	—	—	—	—	1	1	1
Turkey	9	1	—	10	43	—	9	52	62
Venezuela	3	6	2	11	1	11	67	79	90
Total	44	17	13	74	113	197	490	800	874
Unspecified:									
Germany, West	—	—	—	—	—	2	1	3	3
Peru	9	1	—	10	11	—	—	11	21
Total	9	1	—	10	11	2	1	14	24
Grand Total	318	457	275	1,050	840	1,586	8,785	11,211	1/ 12,261

1/ Revised

Foreign Agricultural Service. Compiled from official health certificates and test charts, ARS.

TABLE 1.--Breeding cattle, dairy: Inspections for export from the United States by breed, country of destination, age, and sex, 1957 and 1958--Continued

Year, breed, and country of destination	Male				Female				Total
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1958
	Head	Head	Head	Head	Head	Head	Head	Head	Head
1958:									
Ayrshire:									
Canada	7	1	--	8	2	1	2	5	13
Ecuador	--	1	--	1	--	1	19	20	21
Germany, West	--	--	--	--	--	--	3	3	3
Guatemala	--	--	--	--	2	4	--	6	6
Mexico	--	--	--	--	--	--	--	--	--
Venezuela	2	--	--	2	--	--	--	--	2
Other countries	--	1	--	1	--	--	2	2	3
Total	9	3	--	12	4	6	26	36	48
Brown Swiss:									
Bahamas	--	--	--	--	--	--	1	1	1
Bolivia	5	--	1	6	--	--	2	2	8
Canada	6	3	3	12	11	38	41	90	102
Costa Rica	2	1	4	7	3	--	--	3	10
Cuba	2	6	--	8	19	3	30	52	60
Dominican Republic	1	11	17	29	4	20	26	50	79
Ecuador	--	--	--	--	--	--	1	1	1
El Salvador	--	4	--	4	1	--	7	8	12
Germany, West	--	--	--	--	--	4	4	8	8
Guatemala	16	3	1	20	--	3	--	3	23
Italy	1	5	2	8	23	8	--	31	39
Mexico	6	20	2	28	7	19	63	89	117
Nepal	2	--	--	2	8	--	--	8	10
Nicaragua	--	1	--	1	--	--	10	10	11
Panama Canal Zone	1	--	--	1	--	--	--	--	1
Peru	3	3	1	7	13	31	10	54	61
Turkey	34	1	--	35	9	--	--	9	44
Venezuela	55	55	13	123	10	24	441	475	598
Other countries	--	--	--	--	1	2	--	3	3
Total	134	113	44	291	109	152	636	897	1,188
Guernsey:									
Austria	--	--	--	--	--	--	--	--	--
Bahamas	--	--	--	--	--	--	7	7	7
Canada	6	8	5	19	17	18	66	101	120
Costa Rica	1	1	1	3	1	--	--	1	4
Cuba	--	--	--	--	--	5	11	16	16
Dominican Republic	--	--	--	--	1	1	19	21	21
El Salvador	--	--	--	--	2	--	--	2	2
Germany, West	--	--	--	--	--	20	56	76	76
Guatemala	--	--	--	--	--	--	1	1	1
Mexico	3	1	--	4	3	11	7	21	25
Nicaragua	--	--	--	--	--	--	2	2	2
Panama Canal Zone	--	1	--	1	--	--	--	--	1
Venezuela	--	--	--	--	--	--	--	--	--
Other countries	--	--	--	--	--	--	--	--	--
Total	10	11	6	27	24	55	169	248	275
Holstein:									
Bahamas	--	--	--	--	--	--	2	2	2
Bolivia	--	3	--	3	--	--	--	--	3
Canada	25	10	17	52	40	145	153	338	390
Chile	4	--	1	5	1	2	--	3	8
Colombia	1	2	2	5	11	14	24	49	54
Cuba	--	--	--	--	12	8	146	166	166
Dominican Republic	--	4	4	8	42	15	158	215	223
Ecuador	--	--	2	2	--	--	--	--	2
El Salvador	--	1	--	1	27	9	10	46	47
France	--	--	--	--	--	--	8	8	8
Germany, West	--	--	--	--	1	82	105	188	188
Guatemala	--	1	--	1	1	--	10	11	12
Honduras	--	1	--	1	5	1	--	6	7
Italy	2	5	--	7	--	--	--	--	7
Japan	2	2	1	5	1	1	27	29	34
Mexico	91	24	11	126	159	371	2,607	3,137	3,263
Panama Canal Zone	--	5	2	7	--	--	--	--	7
Peru	1	1	1	3	--	1	3	4	7
Philippine Republic	--	2	--	2	--	--	18	18	20
Turkey	20	1	--	21	100	--	21	121	142
Venezuela	2	9	6	17	2	29	411	442	459
Other countries	1	1	--	2	--	1	2	3	5
Total	149	72	47	268	402	679	3,705	4,786	5,054
Jersey:									
Bahamas	--	--	--	--	--	--	6	6	6
Bolivia	2	1	--	3	--	--	4	4	7
Canada	--	4	2	6	--	7	35	42	48
Costa Rica	1	2	--	3	--	--	--	--	3
Cuba	--	--	--	--	--	--	15	15	15
Dominican Republic	2	--	1	3	2	3	4	9	12
El Salvador	2	1	--	3	24	18	42	84	87
Germany, West	1	--	--	1	--	12	27	39	40
Greece	61	66	--	127	--	--	--	--	127
Guatemala	--	3	1	4	--	4	--	4	8
Japan	--	1	--	1	--	3	25	28	29
Mexico	5	1	1	7	39	24	24	87	94
Nepal	2	--	--	2	9	1	--	10	12
Nicaragua	--	--	--	--	--	--	1	1	1
Philippine Republic	--	--	--	--	--	--	12	12	12
Turkey	24	1	--	25	72	18	--	90	115
Venezuela	--	1	--	1	--	--	--	--	1
Other countries	2	1	--	3	--	--	--	--	3
Total	102	82	5	189	146	90	195	431	620
Unspecified:									
Germany, West	--	--	--	--	--	--	2	2	2
Japan	--	--	--	--	--	1	10	11	11
Mexico	--	11	--	11	--	--	--	--	11
Venezuela	--	--	1	1	--	3	3	6	7
Total	--	11	1	12	--	4	15	19	31
Grand Total	404	292	103	799	685	986	4,746	6,417	7,216

Foreign Agricultural Service. Compiled from official health certificates and test charts, ARS.

TABLE 2.--Breeding cattle, dairy: Inspections for export from the United States, by country of destination, state of origin, breed, age, and sex, annual 1957 and 1958

Country of destination, state of origin, and breed	January-December 1958								Total	
	Male				Female					
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1958	1957
	Head	Head	Head	Head	Head	Head	Head	Head	Head	Head
Bahamas:										
Florida										
Brown Swiss	--	--	--	--	--	--	1	1	1	1
Guernsey	--	--	--	--	--	--	7	7	7	14
Holstein	--	--	--	--	--	--	2	2	2	6
Jersey	--	--	--	--	--	--	6	6	6	--
Total	--	--	--	--	--	--	16	16	16	21
Bolivia:										
Ohio										
Brown Swiss	1	--	1	2	--	--	2	2	4	--
Jersey	2	1	--	3	--	--	4	4	7	--
Oklahoma										
Brown Swiss	4	--	--	4	--	--	--	--	4	--
Texas										
Holstein	--	3	--	3	--	--	--	--	3	--
Total	7	4	1	12	--	--	6	6	18	--
Canada:										
Connecticut										
Guernsey	--	--	--	--	--	1	1	2	2	2
Holstein	1	--	--	1	1	--	--	1	2	1
Jersey	--	2	1	3	--	3	7	10	13	21
Illinois										
Brown Swiss	1	--	--	1	4	--	--	4	5	1
Holstein	2	--	1	3	--	--	7	7	10	1
Indiana										
Brown Swiss	2	--	--	2	--	1	3	4	6	8
Guernsey	--	--	--	--	--	--	3	3	3	11
Holstein	--	--	2	2	--	1	3	4	6	2
Jersey	--	--	--	--	--	1	11	12	12	--
Maine										
Holstein	3	--	--	3	1	--	1	2	5	--
Massachusetts										
Ayrshire	1	--	--	1	--	--	--	--	1	--
Brown Swiss	1	--	--	1	--	--	--	--	1	1
Guernsey	2	2	--	4	1	--	--	1	5	10
Michigan										
Guernsey	1	--	--	1	--	--	--	--	1	4
Holstein	--	1	2	3	--	--	4	4	7	9
Jersey	--	--	--	--	--	--	1	1	1	1
Minnesota										
Brown Swiss	1	1	1	3	--	2	--	2	5	--
Guernsey	--	--	--	--	4	7	1	12	12	--
Holstein	2	2	1	5	34	68	72	174	179	15
Jersey	--	--	--	--	--	--	1	1	1	--
Montana										
Brown Swiss	--	--	1	1	--	7	13	20	21	--
Guernsey	--	--	--	--	--	9	6	15	15	--
Holstein	--	1	--	1	--	--	2	2	3	--
New Jersey										
Brown Swiss	1	--	--	1	--	--	--	--	1	--
Guernsey	1	--	--	1	4	--	5	9	10	8
Jersey	--	--	--	--	--	2	3	5	5	20
New York										
Ayrshire	6	--	--	6	2	--	--	2	8	--
Brown Swiss	--	1	--	1	1	2	10	13	14	1
Guernsey	1	--	--	1	--	--	12	12	13	64
Holstein	5	1	--	6	--	--	27	27	33	13
North Dakota										
Brown Swiss	--	1	--	1	--	6	4	10	11	4
Ohio										
Brown Swiss	--	--	1	1	--	2	6	8	9	12
Guernsey	--	1	--	1	1	--	3	4	5	30
Holstein	--	--	--	--	--	--	2	2	2	4
Jersey	--	2	1	3	--	--	6	6	9	1
Pennsylvania										
Guernsey	--	--	--	--	--	--	3	3	3	10
Holstein	1	1	1	3	2	--	2	4	7	4
Rhode Island										
Guernsey	--	2	--	2	--	--	--	--	2	--
Jersey	--	--	--	--	--	--	1	1	1	19
Washington										
Ayrshire	--	--	--	--	--	--	2	2	2	2
Brown Swiss	--	--	--	--	5	--	4	9	9	2
Guernsey	1	3	4	8	7	1	31	39	47	44
Holstein	4	3	7	14	1	3	20	24	38	57
Jersey	--	--	--	--	--	1	5	6	6	11
Wisconsin										
Ayrshire	--	1	--	1	--	--	--	--	1	2
Brown Swiss	--	--	--	--	1	18	1	20	20	--
Guernsey	--	--	1	1	--	--	--	--	1	5
Holstein	4	1	3	8	1	73	6	80	88	8
Other States										
Ayrshire	--	--	--	--	--	1	--	1	1	1
Guernsey	--	--	--	--	--	--	1	1	1	--
Holstein	3	--	--	3	--	--	7	7	10	3
Total	44	26	27	97	70	209	297	576	673	1/ 429
Chile:										
Florida										
Holstein	1	--	--	1	--	--	--	--	1	--
Illinois										
Holstein	2	--	--	2	--	2	--	2	4	--
Wisconsin										
Holstein	1	--	1	2	1	--	--	1	3	4
Total	4	--	1	5	1	2	--	3	8	1/ 5

TABLE 2.--Breeding cattle, dairy: Inspections for export from the United States, by country of destination, state of origin, breed, age, and sex, annual 1957 and 1958--continued

Country of destination, state of origin, and breed	January-December 1958								Total	
	Male				Female					
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1958	1957
	Head	Head	Head	Head	Head	Head	Head	Head	Head	Head
Colombia:										
Iowa										
Holstein	--	--	--	--	3	1	1	5	5	--
Ohio										
Holstein	--	1	--	1	--	--	16	16	17	--
Wisconsin										
Holstein	1	--	--	1	8	13	6	27	28	--
Other States										
Holstein	--	1	2	3	--	--	1	1	4	2
Total	1	2	2	5	11	14	24	49	54	1/ 9
Costa Rica:										
New Jersey										
Guernsey	1	1	--	2	1	--	--	1	3	--
Jersey	1	--	--	1	--	--	--	--	1	--
New York										
Guernsey	--	--	1	1	--	--	--	--	1	--
Jersey	--	2	--	2	--	--	--	--	2	--
Ohio										
Brown Swiss	--	--	4	4	--	--	--	--	4	--
Other States										
Brown Swiss	2	1	--	3	3	--	--	3	6	--
Total	4	4	5	13	4	--	--	4	17	1/ 4
Cuba:										
Florida										
Brown Swiss	--	--	--	--	--	--	1	1	1	8
Guernsey	--	--	--	--	--	--	5	5	5	47
Holstein	--	--	--	--	--	--	36	36	36	191
Jersey	--	--	--	--	--	--	15	15	15	22
Massachusetts										
Brown Swiss	1	--	--	1	1	1	8	10	11	18
Minnesota										
Brown Swiss	1	2	--	3	10	2	4	16	19	38
South Carolina										
Guernsey	--	--	--	--	--	5	6	11	11	--
Wisconsin										
Brown Swiss	--	4	--	4	8	--	17	25	29	232
Holstein	--	--	--	--	12	8	110	130	130	215
Total	2	6	--	8	31	16	202	249	257	1/ 1,263
Dominican Republic:										
Florida										
Brown Swiss	--	--	2	2	3	17	18	38	40	9
Guernsey	--	--	--	--	--	--	1	1	1	--
Holstein	--	--	4	4	--	12	104	116	120	42
Jersey	--	--	--	--	--	--	1	1	1	--
Illinois										
Brown Swiss	1	3	4	8	1	1	4	6	14	--
Guernsey	--	--	--	--	--	--	2	2	2	--
Holstein	--	3	--	3	--	--	--	--	3	--
Pennsylvania										
Jersey	2	--	1	3	2	3	--	5	8	--
Texas										
Brown Swiss	--	8	10	18	--	--	--	--	18	18
Guernsey	--	--	--	--	1	1	16	18	18	2
Holstein	--	--	--	--	--	--	5	5	5	40
Jersey	--	--	--	--	--	--	3	3	3	--
Wisconsin										
Brown Swiss	--	--	--	--	--	1	3	4	4	22
Holstein	--	1	--	1	42	3	49	94	95	1
Other States										
Brown Swiss	--	--	1	1	--	1	1	2	3	--
Total	3	15	22	40	49	39	207	295	335	1/ 140
Ecuador:										
Connecticut										
Ayrshire	--	--	--	--	--	--	3	3	3	--
Brown Swiss	--	--	--	--	--	--	1	1	1	--
Ohio										
Holstein	--	--	2	2	--	--	--	--	2	--
Massachusetts										
Ayrshire	--	--	--	--	--	--	4	4	4	--
New York										
Ayrshire	--	1	--	1	--	1	2	3	4	--
Wisconsin										
Ayrshire	--	--	--	--	--	--	10	10	10	--
Total	--	1	2	3	--	1	20	21	24	1/ 116
El Salvador:										
Connecticut										
Jersey	--	--	--	--	--	7	--	7	7	--
Maryland										
Jersey	--	1	--	1	--	--	16	16	17	--
New Jersey										
Guernsey	--	--	--	--	2	--	--	2	2	--
Jersey	2	--	--	2	20	5	8	33	35	--
Pennsylvania										
Holstein	--	1	--	1	--	--	--	--	1	14
Jersey	--	--	--	--	4	--	7	11	11	--
Texas										
Brown Swiss	--	4	--	4	--	--	--	--	4	--
Holstein	--	--	--	--	27	9	10	46	46	--
Virginia										
Jersey	--	--	--	--	--	6	11	17	17	--
Wisconsin										
Brown Swiss	--	--	--	--	1	--	7	8	8	7
Total	2	6	--	8	54	27	59	140	148	1/ 161

TABLE 2.--Breeding cattle, dairy: Inspections for export from the United States, by country of destination, state of origin, breed, age, and sex, annual 1957 and 1958--continued

Country of destination, state of origin, and breed	January-December 1958								Total	
	Male				Female					
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1958	1957
	Head	Head	Head	Head	Head	Head	Head	Head	Head	Head
France:										
Texas										
Holstein	--	--	--	--	--	--	8	8	8	--
Total	--	--	--	--	--	--	8	8	8	--
Germany, West:										
Colorado										
Holstein	--	--	--	--	--	--	22	22	22	--
Iowa										
Brown Swiss	--	--	--	--	--	--	1	1	1	--
Guernsey	--	--	--	--	--	8	3	11	11	--
Holstein	--	--	--	--	--	4	14	18	18	4
Kansas										
Brown Swiss	--	--	--	--	--	1	--	1	1	--
Guernsey	--	--	--	--	--	--	4	4	4	--
Holstein	--	--	--	--	--	7	6	13	13	--
Unspecified	--	--	--	--	--	--	2	2	2	--
Massachusetts										
Ayrshire	--	--	--	--	--	--	2	2	2	1
Guernsey	--	--	--	--	--	8	2	10	10	16
Holstein	--	--	--	--	--	2	2	4	4	8
Jersey	--	--	--	--	--	--	5	5	5	3
Minnesota										
Brown Swiss	--	--	--	--	--	3	--	3	3	--
Guernsey	--	--	--	--	--	1	--	1	1	--
Holstein	--	--	--	--	--	18	1	19	19	--
Jersey	--	--	--	--	--	7	--	7	7	--
Ohio										
Brown Swiss	--	--	--	--	--	--	3	3	3	2
Guernsey	--	--	--	--	--	1	16	17	17	14
Holstein	--	--	--	--	--	47	38	85	85	13
Jersey	--	--	--	--	--	--	9	9	9	8
Pennsylvania										
Guernsey	--	--	--	--	--	1	20	21	21	51
Holstein	--	--	--	--	--	2	5	7	7	157
Jersey	--	--	--	--	--	5	9	14	14	4
Virginia										
Ayrshire	--	--	--	--	--	--	1	1	1	16
Guernsey	--	--	--	--	--	--	9	9	9	36
Holstein	--	--	--	--	1	--	16	17	17	32
Jersey	--	--	--	--	--	--	3	3	3	3
Other States										
Guernsey	--	--	--	--	--	1	2	3	3	2
Holstein	--	--	--	--	--	2	1	3	3	4
Jersey	1	--	--	1	--	--	1	1	2	--
Total	1	--	--	1	1	118	197	316	317	1/ 390
Greece:										
California										
Jersey	5	4	--	9	--	--	--	--	9	--
Connecticut										
Jersey	2	--	--	2	--	--	--	--	2	--
Kansas										
Jersey	15	--	--	15	--	--	--	--	15	--
Maryland										
Jersey	--	3	--	3	--	--	--	--	3	--
Michigan										
Jersey	10	11	--	21	--	--	--	--	21	--
Ohio										
Jersey	11	32	--	43	--	--	--	--	43	--
Pennsylvania										
Jersey	11	15	--	26	--	--	--	--	26	--
Virginia										
Jersey	6	--	--	6	--	--	--	--	6	--
Other States										
Jersey	1	1	--	2	--	--	--	--	2	--
Total	61	66	--	127	--	--	--	--	127	1/ 1
Guatemala:										
Florida										
Brown Swiss	--	1	1	2	--	--	--	--	2	19
Guernsey	--	--	--	--	--	--	1	1	1	--
Holstein	--	--	--	--	--	--	10	10	10	41
Kansas										
Ayrshire	--	--	--	--	2	3	--	5	5	--
Ohio										
Jersey	--	1	--	1	--	--	--	--	1	--
Wisconsin										
Ayrshire	--	--	--	--	--	1	--	1	1	--
Brown Swiss	16	2	--	18	--	3	--	3	21	41
Jersey	--	2	1	3	--	4	--	4	7	--
Holstein	--	1	--	1	1	--	--	1	2	35
Total	16	7	2	25	3	11	11	25	50	1/ 190
Honduras:										
Louisiana										
Holstein	--	1	--	1	3	1	--	4	5	--
Ohio										
Holstein	--	--	--	--	2	--	--	2	2	1
Total	--	1	--	1	5	1	--	6	7	1/ 2

TABLE 2.--Breeding cattle, dairy: Inspections for export from the United States, by country of destination, state of origin, breed, age, and sex, annual 1957 and 1958--continued

Country of destination, state of origin, and breed	January-December 1958								Total	
	Male				Female					
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1958	1957
	Head	Head	Head	Head	Head	Head	Head	Head	Head	Head
Italy:										
Illinois										
Brown Swiss	--	--	--	--	5	--	--	5	5	--
Holstein	2	1	--	3	--	--	--	--	3	--
Massachusetts										
Brown Swiss	--	--	--	--	5	2	--	7	7	--
New Jersey										
Brown Swiss	--	4	2	6	--	--	--	--	6	--
Ohio										
Brown Swiss	1	--	--	1	4	--	--	4	5	--
Wisconsin										
Brown Swiss	--	1	--	1	9	6	--	15	16	--
Holstein	--	2	--	2	--	--	--	--	2	1
Other States										
Holstein	--	2	--	2	--	--	--	--	2	2
Total	3	10	2	15	23	8	--	31	46	3
Japan:										
California										
Holstein	--	--	1	1	1	--	26	27	28	12
Jersey	--	1	--	1	--	3	25	28	29	2
Washington										
Unspecified	--	--	--	--	--	1	10	11	11	--
Wisconsin										
Holstein	1	1	--	2	--	1	1	2	4	9
Other States										
Holstein	1	1	--	2	--	--	--	--	2	16
Total	2	3	1	6	1	5	62	68	74	1/ 41
Mexico:										
Arizona										
Guernsey	1	--	--	1	1	--	1	2	3	12
Holstein	3	--	--	3	7	--	41	48	51	339
California										
Brown Swiss	5	11	--	16	4	--	11	15	31	12
Guernsey	1	--	--	1	2	1	1	4	5	48
Holstein	35	6	2	43	105	7	523	635	678	1,605
Jersey	2	--	--	2	15	--	--	15	17	8
Colorado										
Holstein	--	--	--	--	--	--	8	8	8	472
Illinois										
Holstein	--	--	--	--	--	22	135	157	157	112
Kansas										
Unspecified	--	11	--	11	--	--	--	--	11	--
Louisiana										
Brown Swiss	--	--	--	--	2	--	--	2	2	--
Maryland										
Holstein	--	--	--	--	--	--	16	16	16	--
Michigan										
Holstein	--	--	--	--	5	--	--	5	5	--
Minnesota										
Holstein	1	7	1	9	14	23	639	676	685	1,263
New Mexico										
Guernsey	--	1	--	1	--	--	--	--	1	7
Holstein	1	2	1	4	--	--	--	--	4	86
New York										
Brown Swiss	--	4	2	6	--	9	11	20	26	--
Holstein	--	2	--	2	1	79	251	331	333	--
Jersey	--	--	--	--	--	3	--	3	3	--
Ohio										
Holstein	--	--	--	--	14	114	--	128	128	21
Oregon										
Holstein	--	--	--	--	--	1	8	9	9	--
Pennsylvania										
Holstein	--	--	--	--	--	34	43	77	77	--
Texas										
Brown Swiss	1	2	--	3	1	6	--	7	10	105
Guernsey	1	--	--	1	--	10	5	15	16	14
Holstein	33	1	3	37	11	6	126	143	180	758
Jersey	3	1	1	5	24	21	23	68	73	222
Washington										
Holstein	8	1	1	10	2	10	76	88	98	2
Jersey	--	--	--	--	--	--	1	1	1	--
Wisconsin										
Brown Swiss	--	3	--	3	--	4	41	45	48	288
Holstein	10	5	3	18	--	75	741	816	834	1,252
Total	105	57	14	176	208	425	2,701	3,334	3,510	1/ 7,431
Nepal:										
Maryland										
Jersey	2	--	--	2	4	1	--	5	7	--
Ohio										
Brown Swiss	2	--	--	2	8	--	--	8	10	--
Pennsylvania										
Jersey	--	--	--	--	5	--	--	5	5	--
Total	4	--	--	4	17	1	--	18	22	--
Nicaragua:										
Florida										
Guernsey	--	--	--	--	--	--	2	2	2	--
Jersey	--	--	--	--	--	--	1	1	1	--
Wisconsin										
Brown Swiss	--	1	--	1	--	--	10	10	11	84
Total	--	1	--	1	--	--	13	13	14	1/ 131

TABLE 2.--Breeding cattle, dairy: Inspections for export from the United States, by country of destination, state of origin, breed, age and sex, annual 1957 and 1958--continued

Country of destination, state of origin, and breed	January-December 1958								Total	
	Male				Female					
	Under 1 year	1 year and under 2 years	2 years and over	All ages	Under 1 year	1 year and under 2 years	2 years and over	All ages	1958	1957
	Head	Head	Head	Head	Head	Head	Head	Head	Head	Head
Panama Canal Zone:										
Delaware										
Holstein	--	4	2	6	--	--	--	--	6	--
Other States										
Brown Swiss	1	--	--	1	--	--	--	--	1	--
Guernsey	--	1	--	1	--	--	--	--	1	--
Holstein	--	1	--	1	--	--	--	--	1	--
Total	1	6	2	9	--	--	--	--	9	1/ 5
Peru:										
Colorado										
Brown Swiss	2	--	--	2	3	9	4	16	18	--
Connecticut										
Brown Swiss	--	--	--	--	3	11	--	14	14	2
Illinois										
Brown Swiss	1	2	--	3	2	7	3	12	15	--
Massachusetts										
Brown Swiss	--	--	--	--	5	--	--	5	5	--
Holstein	--	--	--	--	--	1	3	4	4	--
Ohio										
Brown Swiss	--	1	1	2	--	4	3	7	9	3
Other States										
Holstein	1	1	1	3	--	--	--	--	3	338
Total	4	4	2	10	13	32	13	58	68	1/ 375
Philippine Republic:										
California										
Holstein	--	1	--	1	--	--	18	18	19	--
Jersey	--	--	--	--	--	--	12	12	12	--
Washington										
Holstein	--	1	--	1	--	--	--	--	1	--
Total	--	2	--	2	--	--	30	30	32	--
Turkey:										
Iowa										
Brown Swiss	3	--	--	3	--	--	--	--	3	8
Kansas										
Holstein	--	--	--	--	--	--	10	10	10	--
Maryland										
Holstein	12	--	--	12	35	--	--	35	47	2
Jersey	4	--	--	4	7	--	--	7	11	4
Minnesota										
Brown Swiss	5	--	--	5	--	--	--	--	5	--
Ohio										
Brown Swiss	1	--	--	1	6	--	--	6	7	--
Holstein	2	1	--	3	45	--	11	56	59	11
Jersey	16	1	--	17	64	18	--	82	99	26
Pennsylvania										
Holstein	6	--	--	6	20	--	--	20	26	--
Wisconsin										
Brown Swiss	25	1	--	26	3	--	--	3	29	--
Jersey	4	--	--	4	1	--	--	1	5	--
Total	78	3	--	81	181	18	21	220	301	1/ 84
Venezuela:										
Florida										
Brown Swiss	--	--	5	5	--	2	3	5	10	103
Illinois										
Brown Swiss	33	8	--	41	4	--	27	31	72	57
Holstein	--	1	--	1	--	2	92	94	95	116
Indiana										
Brown Swiss	--	--	--	--	--	3	9	12	12	11
New York										
Brown Swiss	7	10	--	17	4	2	154	160	177	64
Holstein	--	--	--	--	--	--	3	3	3	20
Jersey	--	1	--	1	--	--	--	--	1	--
Ohio										
Ayrshire	2	--	--	2	--	--	--	--	2	--
Brown Swiss	6	28	3	37	1	2	167	170	207	192
Holstein	--	--	--	--	--	8	75	83	83	73
Texas										
Brown Swiss	2	3	2	7	1	1	33	35	42	7
Holstein	--	--	4	4	2	16	17	35	39	47
Wisconsin										
Brown Swiss	5	6	3	14	--	14	48	62	76	167
Holsteins	2	8	2	12	--	3	224	227	239	191
Unspecified	--	--	--	--	--	3	3	6	6	--
Other States										
Brown Swiss	2	--	--	2	--	--	--	--	2	58
Unspecified	--	--	1	1	--	--	--	--	1	--
Total	59	65	20	144	12	56	855	923	1,067	1/ 1,290
Other Countries:										
Ayrshire	--	1	--	1	--	--	2	2	3	1
Brown Swiss	--	--	--	--	1	2	--	3	3	9
Guernsey	--	--	--	--	--	--	--	--	--	17
Holstein	1	1	--	2	--	1	2	3	5	125
Jersey	2	1	--	3	--	--	--	--	3	18
Total	3	3	--	6	1	3	4	8	14	1/ 170
Grand Total	404	292	103	799	685	986	4,746	6,417	7,216	2/ 12,261

1/ Figures above this total are for specified states and breeds only and do not necessarily add to this figure which represents total exports. For more detailed breakdown for 1957, see dairy cattle circulars FD 10-57, FD 3-58 and table 2 of this circular.

2/ Revised.

Foreign Agricultural Service. Compiled from official health certificates and test charts of Agricultural Research Service.

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March 26, 1959

RECOMBINED MILK AND DAIRY PRODUCTS MADE IN BURMA WITH U.S. INGREDIENTS [1]

Introduction

The possibility of recombining milk and the making of dairy products from such milk in Burma, using U.S. nonfat dry milk and anhydrous milk fat was proposed to Burmese Government officials and industry representatives in 1956 as a means of supplementing Burma's supply of milk and milk products.

A brief report of the dairy situation in Burma and of the possibility of supplemental recombining was made to the U.S. dairy industry by the Foreign Agricultural Service in Foreign Agriculture Circular FD 3-56 of May 1, 1956, Business Opportunities With Respect to Recombined Milk and Dairy Products in Certain Near and Middle Eastern Countries.

The U.S. agricultural attache in Rangoon has encouraged the Burmese Government's interest in recombining. As a result of his activities, Burmese officials requested actual demonstration of the manufacture of recombined milk and other products using U.S. ingredients. The demonstration showed how sweetened condensed milk, sterilized milk, and ice cream of excellent flavor, body and texture could be made from U.S. nonfat dry milk and anhydrous butterfat.

Burma is definitely a dairy deficient country. The milk production in 1956 was 246,355,000 liters (63,603,000 gallons) or about 1.7 percent more than in 1955. For 1957 the estimated production was about 250,000,000 liters (66,045,000 gallons). With a population of 18,800,000 this production provides only about 27 pounds of milk per person per year. Less than 40 percent of the milk was consumed as fluid milk, the remainder was used for making butter, cheese and curd, evaporated and condensed milk.

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[1] By L. H. Burgwald, Dairy Marketing Specialist, Foreign Agricultural Service. The author received valuable assistance from the U.S. agricultural attache in Rangoon, and from Burmese officials and the Rangoon Dairy in conducting this study.

Imports of dairy products have gradually increased each year from 281,000 cwt. in 1953 to 290,000 cwt. in 1956. Sweetened condensed milk was the major dairy import item. From January to November, 1956 215,598 cwt. of condensed milk was imported - valued at 18,268,298 kyats ($3,836,342.58). In 1957 from January to May, 188,823 cwt. of sweetened condensed milk was imported valued at 18,871,609 kyats ($3,963,037.89).

Foreign exchange could be saved by importing U.S. nonfat dry milk and anhydrous milk fat under Public Law 480 for the manufacture of recombined sweetened condensed milk. In addition to making recombined sweetened condensed milk, the recombining ingredients could be used for making recombined fluid milk, sterilized milk, ice cream, evaporated milk and cheese. In fact, recombined milk could be used for making any milk product that can be made from fresh milk.

The Burma Government expressed an interest in the possible use of U. S. nonfat dry milk and anhydrous milk fat for the manufacture of sweetened condensed milk at the Maymyo plant and for making recombined milk for the Milk Sterilization Plant at Rangoon. Both of these plants experience shortages in milk supplies and the Maymyo plant shuts down operations for about three months a year (March, April and May) because of the shortage of milk during these hot dry months.

Maymyo Condensed Milk and Butter Pilot Plant: This is a Government plant operated under the direction of the Industrial Development Corporation.

Although small, this plant was not being operated to capacity, due partly to the lack of fluid milk available and also to the relatively high cost of the milk. The product sold for 45 kyats ($9.45) per case wholesale and was in competition with imported product selling for 90 pyas to 1 kyat ($0.19 to $0.21) per can retail.

The plant was receiving only 750 viss (viss = 3.6 pounds) of milk per day (capacity is 1500 viss in an 8-hour day). According to their 1958 records through September they had received 678,518 pounds or 188,477 viss of milk, had used 109,939 pounds or 30,539 viss of sugar and had made 247,696 pounds or 68,804 viss of sweetened condensed milk. Thus, it required 2.74 pounds of fresh milk to make 1.0 pound of sweetened condensed milk or (115.08 pounds or 31.97 viss) of fresh milk to make one case of sweetened condensed milk. Also it required 0.443 pounds of sugar to make 1.0 pound of sweetened condensed, or 18.61 pounds or 5.17 viss to make one case.

In 1958 the ingredient cost for making a case of sweetened condensed milk was 31.97 x 89 pyas ($0.19) = 28.45 kyats ($5.97) for fresh milk and 5.17 x 1.75 kyats ($0.37) = 9.05 kyats ($1.90) for sugar, or a total of K. 37.50 ($7.87).

If U.S. nonfat dry milk and anhydrous milk fat obtained under Public Law 480 were used for making sweetened condensed milk a saving of more than 16 kyats ($3.41) per case would result. This is basing the cost on nonfat at 7 cents per pound and anhydrous butterfat at 57 cents per pound f.a.s., U.S. port plus 2.5 cents per pound c.i.f., Rangoon. Actual figures cannot be given as the processing cost for converting butter to anhydrous milk fat will vary dependent upon the amount of product ordered.

However, using these approximate figures the ingredient cost of making 100 pounds of sweetened condensed milk containing 9.0 percent fat, 21 percent milk solids not fat and 43 percent sugar would be 9 x 59.5 = $5.355 + 21 x 9.5 = $1.995 + 43 x 10.2 = $4.39 = Total $11.74. One hundred pounds of sweetened condensed milk produces 2.38 cases of finished product. Therefore, per case cost would be 11.74 ÷ 2.38 = $4.93 x 4.70 = 23.17 kyats. A saving of ingredient cost of 37.50 - 23.17 = 14.33 kyats ($3.01) per case would result.

In addition to the saving in ingredient cost there would also be a saving of steam, electricity, refrigeration and labor, since there would be no milk receiving and cooling operation, no condensing operation, and at least twice the amount of sweetened condensed milk could be handled in an 8-hour day than is presently handled. Also there would be no shut down of the plant required during the fresh milk shortage months of March, April and May as at this time. These factors should further save at least 4.0 kyats ($0.84) per case. The use of nonfat dry milk and anhydrous milk fat would enable the plant to run at capacity the year round.

The possibility of creating a market for sweetened condensed skim milk should also be explored. Such a product could be produced much more cheaply than whole condensed milk and would keep as well. It should contain 30 percent milk solids and 43 percent sugar.

One hundred pounds of sweetened condensed skim milk made from nonfat dry milk would cost - nonfat (30 x 9.5 = $2.85) + sugar (43 x 10.2 = $4.39) for a total of $7.24, as compared to $11.74 for whole milk condensed, or about one-third less for ingredient cost.

Only two extra pieces of equipment would be required in this plant for making sweetened condensed milk from nonfat dry milk and anhydrous milk fat. They would be an homogenizer to prevent the product from oiling off, and a steam and water jacketed mixing vat with vigorous agitation.

The Milk Sterilization Plant: This is a Government owned plant in Rangoon, operated under the direction of the Land and Rural Development Corporation, The plant receives about 100 viss (3600 lbs.) of milk daily, which is not enough to operate full time. However, it meets present sales at prices charged. The plant pays 1 kyat (21 cents) per viss for producer's milk and sell the sterilized milk at 35 pyas (7 cents) per 8 oz. bottle wholesale and 42 pyas (9 cents) retail. A 6 oz. bottle sells for 25 pyas (5 cents) wholesale and 30 pyas (6 cents) retail. It usually sells in the stores at 50 pyas (10.5 cents) and 40 pyas (8.5 cents) each.

The milk received at the plant is heated to 150°F. in a plate heater, homogenized at 2000 pounds pressure, bottled hot, and sterilized at 220°F. ($7\frac{1}{2}$ # S.P.) for 40 minutes.

This plant could easily be converted to make recombined milk. The only additional equipment actually required for making sterilized milk would be a mixing vat and cone.

It is estimated that the ingredient cost of recombined milk (made from U.S. products as described under Maymyo Plant) containing 3.5 percent fat and 9.0 percent milk solids not fat would be about 50 pyas a viss or a saving of 50 percent in fluid milk cost. In addition there would be a saving in labor cost as the plant could be run at full capacity. Such savings could be passed on to the consumer. This would increase sales and consumption of milk and promote better health of many more people.

Rangoon Dairy

This is a private dairy, and is the only pasteurized milk plant in Rangoon.

The plant receives about 360 viss (150 gallons) of milk per day, which is pasteurized and bottled. 1.25 kyats (26 cents) per viss is paid for the producer's milk. The daily plant sales volume is 150 quarts sold at 2.20 per quart (46 cents), 250 pints at 1.20 each (25 cents), 600-1/2 pints at 0.75 (16 cents) each and a few 6 oz. at 0.60 kyats (13 cents) per bottle.

The plant owner stated an interest in obtaining nonfat dry milk and anhydrous milk fat for making ice cream.

The use of U.S. nonfat dry milk and anhydrous butterfat for making ice cream mix containing 10 percent fat and 11 percent serum solids would reduce the present fresh milk cost of the milk solids in the mix by about one half.

This plant to utilize recombining ingredients would require an homogenizer and a mixing cone.

The owner also expressed interest in making sweetened condensed milk from U.S. nonfat and anhydrous milk fat and the use of glass bottles instead of tin cans for the product's sale in Rangoon. This would enable a greater saving, and various size containers from 6 oz. up to 1 quart which would hold about 2.75 pounds for restaurant and tea-room sale.

Demonstration No. 1

A small demonstration was given at the Rangoon Dairy on the making of sweetened condensed from nonfat dry milk and butter. No homogenizer was available and it was of interest to see if a recombined condensed milk could be made without homogenization, and still retain the fat in suspension.

A water jacketed kettle, electrically heated and water cooled was used. To 8.75 pounds of water at 115°F. 7.25 pounds of nonfat was added and mixed thououghly, then 4 pounds of butter was added, and the mixture heated to 130°F. At this point 14.75 pounds of sugar was slowly added with continuous stirring, and heated to 170°F. It was then cooled to 88°F. and "seeded" with one can of commercially prepared sweetened condensed.

The product was prepared to contain 9.0 percent fat, 21.0 percent milk solids not fat and 43.0 percent sugar.

The resultant product was of good flavor and consistency, but the fat oiled off, indicating that homogenization would be necessary.

Demonstration No. 2

This demonstration was made at the Milk Sterilization Plant where 180 pounds (50 viss) of recombined milk was made containing 3.5 percent fat and 9.0 percent solids not fat. (They only had 500 - 6 oz. bottles available for this product.) 16.2 pounds of nonfat dry milk was mixed with 157 pounds of water at 120°F, 6.3 pounds of anhydrous milk fat was added, then heated to 160°F and homogenized at 2000 pounds pressure. The milk was bottled in 6 oz. bottles and sterilized at 220°F. (7.5 pounds steam pressure) for 15 minutes. (It took 13 minutes for the steam chest to come up to temperature). It was suggested that the product be sterilized for 20 minutes instead of 15 minutes.

The product was of good flavor, less caramelized than the fresh milk product and a lighter color due to shorter sterilizing. They estimated that this product would not require as much sterilization time as fresh milk because it had a lower bacterial count and thus a lower spore content.

80 pounds of homogenized cream was also made from the nonfat dry milk and anhydrous milk fat containing 25 percent fat and 12.5 percent solids not fat to be used for making sweetened condensed milk and ice cream mix. To make this cream, 10 pounds of nonfat dry milk was added to 50 pounds of

water at 115°F. mixed thoroughly, then 20 pounds of anhydrous milk fat was used and the mixture was heated to 150°F. and then homogenized at 2000 pounds pressure. The mixture was then run through the homogenizer a second time at 1000 pounds pressure.

Demonstration No. 3

The 80 pounds of cream made in Demonstration No. 2 was taken to the Rangoon Dairy Plant, where 36 pounds of the cream was used to make 100 pounds of sweetened condensed milk in the water jacketed kettle used in Demonstration No. 1, by adding 5 pounds of water and with the heat turned on, 16.5 pounds of nonfat was added slowly with vigorous agitation. At a temperature of 140°F the sugar was added slowly with constant stirring and continued heating to 170°F. It was then cooled with water in the jacket to about 88°F. and two cans of a commercial brand of sweetened condensed was added with thorough stirring for "seeding" purposes.

Continued cooling to 80°F. and then bottled or drawn off in a can and placed in the regrigerator.

The product had a very good consistency and flavor. There was no oiling off.

Demonstration No. 4

The remaining 44 pounds of homogenized cream made in Demonstration No. 2 was used to make 110 pounds of ice cream mix by mixing 6.5 pounds of nonfat dry milk to 43 pounds of water and adding to the cream. Then 16.5 pounds of sugar and 8 oz. of gelatin was added. The mix was pasteurized at 160°F. for 30 minutes and then cooled to 40°F. It was frozen the next day.

This mix contained 10 percent fat, 10.9 percent serum solids, 15 percent sugar and 0.45 percent stabilizer.

Demonstration No. 5

Another batch of homogenized cream for making sweetened condensed was made at the Sterilization Plant the next day to be used at the condensed milk plant at Maymyo.

It was made as follows: using 10 pounds of nonfat dry milk in 22 pounds of water; heating this to 170°F, and then adding 9 pounds of anhydrous milk fat and homogenizing at 2000 pounds pressure. This made 41 pounds of cream which was taken back to Maymyo together with some nonfat dry milk.

To this amount of cream at the Maymyo plant it will be necessary to add 5 pounds of water, 11 pounds of nonfat dry milk, and 43 pounds of sugar to make 100 pounds of sweetened condensed, containing 9.0 percent fat, 21.0 percent milk solids not fat and 43.0 percent sugar.

It is advisable to mix the milk powder thoroughly with the sugar in the dry form and then add the dry mixture slowly to the cream with vigorous stirring at a temperature above 150°F. When thoroughly mixed, complete the heating to 170°F. or 180°F. and cool to 88°F. and "seed" with lactose or with about 2.0 pounds of a previously made sweetened condensed milk. This is done to prevent large lactose crystals from forming.

Distribution of Samples

Samples of both sterilized milk and sweetened condensed milk were sent by Carl O. Winberg, agricultural attache, to interested government and industry representatives, with the following letter:

> "I know you will be pleased to sample this recombined sterilized milk and sweetened condensed milk which has been made in Burma from ingredients imported from the United States and which are available under Public Law 480. These two products have been produced at a cost substantially below the present cost of locally produced or imported products. They were processed at the 9th Mile Milk Sterilization Plant, Prome Road, Rangoon. Louis Burgwald, Dairy Specialist of the U.S. Department of Agriculture has cooperated with Burmese technicians to produce these products. Not only can the costs be appreciably reduced and production increased to meet any demand and remain uniform throughout the year, but foreign exchange can be saved. We are sure that with a lower price, more dairy products will be consumed and better health of Burmese people will result."

Samples were also given to the U.S. Ambassador and Commercial Attache.

Only favorable comments were received regarding the samples distributed. The samples submitted to the Director of Union of Burma Applied Research Institute were bacteriologically examined by the Food Technologist at the Institute and found to be free of bacterial growth on all dilutions made.

Conclusions

There should be a good market for nonfat dry milk and anhydrous milk fat in Burma. The price at which they can get it from the U.S. under Public Law 480 will enable them to produce recombined milk at an ingredient cost for 3.5 percent fat and 9.0 percent solids not fat milk for about 50 pyas (10.5 cents) per viss. This milk could be used for sterilized milk, pasteurized milk, chocolate or other flavored milk, and could be profitably sold at a price of about one half the present price if consideration is given to the fact that the plants could be operated at full capacity every day. Thus, reducing labor and overhead costs.

Sweetened condensed milk containing 9.0 percent fat, 21 percent milk solids not fat and 43 percent sugar could be produced at a milk ingredient cost of about 14.52 kyats ($3.09) per case. This is a saving of nearly 49 percent over present costs. Here again the saving in labor and overhead would be considerable. It is estimated that at least 4 kyats (84 cents) per case could be saved in this respect. At present there isn't enough milk available to permit the Maymyo plant to operate at full capacity. A full supply of milk would reduce operating costs. This would be especially true if more condensed milk could be sold in bulk, or a cheaper source of tin cans, or a cheaper type of container could be obtained, such as a plastic bag, or returnable glass bottles. The possibility of also making sweetened condensed skim milk should be explored.

Consideration should also be given to the amount of foreign exchange that can be saved by producing sweetened condensed milk in Burma. This is the dairy product that is imported in the greatest amount.

More milk at a lower price in Burma would mean a higher consumption level, and resultant better health and nutrition for the people.

It was suggested the Burmese Government officials give serious thought to the advantages to be gained by obtaining U.S. nonfat dry milk and anhydrous milk fat, for both Government and private plants. The general public would benefit by obtaining more milk products at a lower price than is now possible.

At present in Rangoon, a city of about 800,000 population, there is only one milk pasteurizing plant handling 150 gallons of milk per day and one sterilized milk plant handling about 420 gallons of milk per day. That is less than 0.1 of an ounce of fluid milk per capita daily, or about 3 thimbles full of milk per person.

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FD 3-59
March 31, 1959

U. S. DAIRY CATTLE MARKET PROSPECTS GOOD IN 5 LATIN AMERICAN COUNTRIES [1]

Interest in U. S. dairy breeding cattle is increasing in the Dominican Republic, Colombia, Venezuela, Ecuador, and Peru. (Colombian currency restrictions prevent the importation of cattle at this time.)

U. S. dairy cattle are meeting competition from Canada, the Netherlands, West Germany, France, and the United Kingdom, in spite of handicaps imposed by transport costs, trade treaties, and long-term financial assistance to local producers.

Latin Americans buy on a personal preference basis. U. S. breeders can help establish this preference by attending the important livestock shows and visiting exhibitors' farms in Latin America, and by inviting Latin American breeders to visit U. S. farms.

Milk consumption in the countries studied is increasing, although the price of milk is relatively high in relation to wages. The rise is the result of advertising campaigns and efforts to produce better milk. Venezuela now requires all milk sold to the public to be pasteurized.

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[1] This Circular is based on first-hand observations by Fred M. Lege, Marketing Specialist, Dairy and Poultry Division, Foreign Agricultural Service, during a special study in the Dominican Republic, Colombia, Ecuador and Peru. Since details of the market prospects for each breed have been supplied to the breed associations concerned, inquiries regarding specific breeds should be addressed to the proper association. The author received valuable assistance from the U. S. agricultural attaches.

Production objectives are not only to produce more milk, but to improve the economic efficiency of production. Most of the countries mentioned have started programs similar to the Dairy Herd Improvement Association in the United States. With time and continued breeder cooperation, benefits of this type of work will become increasingly evident. Some of the countries are also attacking the production deficiency from the standpoint of animal health. Venezuela, for example, has made substantial progress against tuberculosis and brucellosis, using the test and slaughter method with government-financed indemnification.

More Latin American countries are demanding milk production records of imported sires and dams. Import regulations set minimum production records. In some countries, these have been in effect several years, and there are present proposals to raise the minimum standards. U. S. breeders need to know these minimum requirements, as well as all veterinary examinations requirements.

Factors affecting U. S. dairy cattle exports to individual countries covered by this report follow:

Dominican Republic

Substantial progress is being made in Dominican dairy and beef breeding programs. It could well be the fastest growing segment of the Republic's economy.

There is an active market for U. S. cattle in the Dominican Republic. The breeders are enthusiastic and there is no exchange rate problem. Acceptance of, and growing demand for U. S. dairy cattle is shown by the sharp rise in imports. In 1957 the United States exported about 140 head to the Republic, and in 1958, at least 335 head.

Selling Ideas for U. S. Breeders: Dominican cattlemen feel that an international loan for cattle purchases would accelerate their U. S. cattle purchases. Some other suggestions given as aid to more trade are: (1) Availability of mortality insurance for the transportation plus 6 months or a year after arrival (such insurance should cover death from disease); (2) exportation of the animals at 8 to 12 months of age to enable the cattle to acclimate quicker; (3) U. S. breeders should show more interest in their cattle after they arrive in the Republic; (4) for U. S. breeders to visit Dominican National Cattle Expositions [1], meet breeders, and answer questions on available U. S. cattle; and (5) invite the Dominican breeders to visit the U. S. breeders' farms and cattle expositions.

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[1] The Cuidad Ganadera (livestock city) in Cuidad Trujillo is a beautifully planned and maintained installation for livestock shows that compare favorably with any in the Western Hemisphere. Show cattle from southern United States would adjust to the climate at this Show because animals are stabled in individual pens with sufficient shade and cool breezes. U. S. participation in future International shows create much good will.

Butter and Cheese Consumption Is Increasing: This tends to build up dairy cattle numbers. The increasing market for butter and cheese plus milk for fluid use also encourages dairy herd expansion.

Milk Consumption Increasing In Spite of Price: Price of milk per 660 gram bottle in the Dominican Republic varies with each community, in close relation to minimum wages for the area. It takes 1-1/2 hours wages to buy one quart of milk. In the United States this milk would cost $1.50 per quart.

Inadequate Supply of High Quality Forage Hampering Livestock Breeding Program: The problem is not insufficient forage, but a forage with enough high protein to keep the young animals growing economically. There was great breeder interest in finding an adaptable legume to furnish this protein.

Jamaica

Jamaica has developed its own dairy breed called the "Jamaica Hope" from a Sahiwal Brahman bull from India and a half-breed criollo cow that was sired by a Jersey bull from the U. S. Hood Jersey Farm. The Brahman bull selected for importation from India had a dam and gran dam, each of whom produced 6,000 pounds of milk in one year.

Work to develop this breed has been going on since 1910. Imported purebreds were bred to criollo (native) cattle. The experiments were begun using Holstein, Brown Swiss, Ayrshires and Guernseys in addition to the Jerseys. After extensive testing and record keeping the Jersey was selected as most suited to the Jamaican industry, and the work on the other breeds was abandoned. Further information on the Jamaica Hope breed has been made available to the American Jersey Cattle Club.

Prices: The Jamaican farmer receives $4.44 per 100 pounds for his milk (on an average test of 4.2 percent butterfat) and the milk is retailed for $7.27 per 100 pounds. Milk for fluid use is bought without regard to fat content; that sold to the condensing plants is bought on a butterfat content basis, however.

Retail milk price is relatively high in terms of minimum wages. The information indicates that the minimum wage earner in the cities earns approximately $1.75 per day. It would be necessary for the wage earner to work about an hour to buy a quart of milk. In the United States by the same ratio milk would cost $1.00 per quart. This will limit widespread use of milk.

A government-owned breeding herd lends bulls in order to standardize the dairy breed (Jamaica Hope), and to improve milk production.

Import possibilities are practically non-existent and are discouraged to further the intensification and multiplication of the national breed.

Export possibilities are not bright. Because of the small number of Jamaican cattle in relation to the human population, the exports are not expected to exceed over 200 head per year for the next 3 to 5 years.

Colombia [1]

Colombian Breeders Anxious to Renew Dairy Cattle Imports: Colombia is the only Latin American country that prohibits breeding cattle imports. In 1956, however, Colombia took $3,000,000 worth of U. S. livestock. Therefore, every effort is being made to help the Colombian breeders until they can again import cattle. Within the last month, restrictions were lifted permitting the importation of poultry breeding stock. It is hoped that this is an indication that the removal of the dairy cattle import restrictions will be lifted.

Barranquilla: The dry area around Barranquilla was thought limited to Brown Swiss cattle, but Holsteins were observed on farms. The Holsteins were thriving with nice "bloomy" coats and plenty of size for age. In this area the minimum wage earner has to work 1 hour for a liter of milk and 2 hours for a pound of meat.

Medellin Milk Promotion Program Effective: The area around Medellin is green all year round in spite of short periods of drought. Here was seen the evidence of the Dairy Society International program being carried on in cooperation with the Foreign Agricultural Service to stimulate milk consumption. In the 4 months of program operation in this area, the daily use of milk has increased from 90,000 liters to 122,800 liters. There was more milk in the restaurants and hotel dining rooms in Medellin, Colombia than in any of the 17 other countries that have been visited in Latin America.

Colombia Now Has a Dairy Herd Improvement Association: This operates on the same basis as the one in the United States. Improvement work is receiving more and more cooperation from the breeders and in a few years should produce results in the form of increased average milk production per cow and, therefore, more economical production.

Present Exchange Rate Discourages Another Tourists-for-Cows Plan [2]: In 1958 when Colombian breeders bought cows from U. S. tourists for pesos, the exchange rate was 6.85 pesos to the U. S. dollar. At the time the tourists went to Colombia, however, the exchange rate was 8.10 pesos to the dollar. The Colombian breeders indicated an interest in a further exchange of the Tourists-for-Cows type if a better exchange rate can be obtained. Visits to breeders who imported U. S. cattle under this plan indicated that all but 2 animals purchased were doing very well.

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[1] This Circular does not repeat information contained in Foreign Agriculture Circular FD 10-58, Latin America Best Market for U. S. Dairy Breeding Cattle, published September 17, 1958.

[2] U. S. breeders accepted Colombian pesos for the cattle sold. The U. S. breeder used the Colombian pesos to pay his transportation and a 2-week visit in Colombia. None of the pesos could be converted to U. S. dollars by the U. S. breeder.

Foot-and-Mouth Disease: The result of the new foot-and-mouth disease outbreak in the Cauca Valley were observed. One herd visited had a milk production drop from 1,000 liters per day to 150. Udder damage was widespread and permanent. The bulls were too crippled for service; even slightly affected animals were crippled.

Excellent Results With Artificial Insemination: The Ministry of Agriculture owns a U.S. bull named "Carnation O'Boy" on the hacienda of Sr. Paul Bickerbach. This bull was bred to 3,600 cows in 1958 by artificial insemination. This is thought to be a record for Colombia. He is alert and active.

Ecuador

Ecuador Ready Market: Partly as a result of a previous visit to Ecuador in July 1958, Ecuadorian breeders have shown definite desire to buy U. S. cattle. A group of buyers are coming to the United States in May to buy an estimated $100,000 to 400,000 worth. These breeders have shown great enthusiasm at the idea of visiting our U. S. breeders and negotiating sales with them face to face. Their trip is being arranged by the Foreign Agricultural Service, the International Cooperation Administration, and the U. S. purebred breed associations. The Ecuadorians listed the areas they want to visit, the breed, age of the animals desired, the quality of animals wanted, and other facts.

Need For More Liberal Loans: Breeders in Ecuador are still anxious to get more liberal loans than are at present available in their country. They are asking their local banking facilities for expanded credit terms locally; failing in this, they would like loans of the type granted by the Export-Import Bank to Mexico for the enlargement of the latter's cattle industry.

Demand for all 5 Dairy Breeds plus Beef Cattle: With the many varied areas of present and potential cattle production, Ecuador has found all U. S. breeds adaptable to its climate. There has been generalization regarding adaptability in different areas of Ecuador. Criticism of adaptability should be noted carefully. A breed can easily be condemned for inadaptability when the actual fault lies in the management during the period of acclimation, or even afterwards.

Urge Change In Minimum Production Import Requirements: To insure that only the breed-improving quality of animals are imported into Ecuador, the U. S., I.C.A. program through its SCIA program recommends that the minimum milk production records for sires and dams be increased materially. These recommendations have not yet been adapted, but are indicative of tendency throughout Latin America to demand production for the money being spent for imported cattle.

The local Dairy Herd Improvement Association is making slow but steady progress towards more efficient production by eliminating low-producing cows.

Pasture Improvement: A hacienda was observed where 2-1/2 cows to every acre were grazing through improved pasture, pasture rotation, irrigation, and fertilization. The size and condition of the animals were gratifying.

Milk Prices Relatively High: The minimum wage in Quito roughly equals the price of a liter of milk. This is comparable to $1.00 per quart in the United States.

Peru 1/

Northern Peru Market for Jersey, Brown Swiss and Holstein: Northern Peru is a semi-desert area from Chiclayo, the southern most point visited, to Talara in the extreme northern part of the country. Under irrigation parts of this area became oases. The climate and soil are enough like certain dairy production areas in the United States to give assurance of successful operation. Some good Jersey breeding establishments are similar areas in this country. This information, conveyed to only 3 men in a brief conversation, created an immediate demand for 80 Jersey heifers. There is a market also for Brown Swiss females. The herd average on one farm was only 5 to 5-1/2 liters of milk a day on 237 head in milk. The main problem seemed to be selection and management. The feeding system and the quality of the roughage were very good. Another farm visited, close enough to have equal climatic advantage and disadvantages, reported average production of 12 to 13 liters per day. The owner knew how to raise and care for breeding and milking cattle. The difference in the production was management and selection.

Dairying In Its Infancy In Northern Peru: The population of northern Peru is not enough to support a very large scale dairy industry, but as yet the surface has just been scratched. There are seasonal shortages of all kinds of milk in Talara, Piura, and Chiclayo. The shortage of high quality milk is prevalent throughout the year. The demand for quality milk even at slightly higher prices is evidenced by the waiting list for buyers of the high quality milk. Here the producers could be helped with imported cattle of high producing parents. Any help in the technical aspects of dairy production would create more demand for U. S. breeding cattle.

The new ultra-modern 50,000 liter per day Sterilization Plant in Lima in only 7 months has reached one-half its daily capacity. This is a high quality product that is by necessity more expensive than some of the other milk available, but the acceptability is being proven by the sales record.

1/ Information regarding the Lima area was contained in Circular FD 10-58 of September 17, 1958.

U. S. Breeders to Repeat Consignments to Lima Sale This Year: Last year 2 U. S. breeders took cattle to a consignment auction sale in Lima. They had no guarantee of any kind as to price or expenses. The cattle sold well, with the Jerseys averaging about $750 each and the Brown Swiss close to $850 each. Contacts made during the U. S. breeders' stay in Peru have led to further sales by both breeders and an increasing regard for U. S. cattle and cattlemen. This illustrated the value of personal contact in Latin America.

Artificial Insemination Almost Unknown in Northern Peru: While Peru as a whole is probably the largest market for U. S. frozen semen in Latin America, its northern area has not been developed along that line. Two specific requests were received for information on the possibilities of beginning importations of frozen semen to northern Peru. Both requests were from outstanding breeders in this area.

Cattle Feed Sources Neglected: The northern area has a very extensive segment devoted to sugarcane and rice. The resultant molasses is so abundant and so cheap it is used to put on the dirt roads to allay the dust. There is enough molasses and rice bran available to serve as the foundation of a dairy feed and cattle-fattening industry. Peru is now importing meat, so this neglected resource could be put to use to strengthen the general economy and make available more foreign currency to purchase U. S. breeding cattle to build up the cattle industry.

Milk prices in Talara and withdrawal of U. S. personnel would discourage recombining. Milk is being sold in Talara for 3.20 soles, equivalent to 11.8 U. S. cents per liter. While this is cheap by U. S. standards on a straight conversion rate, the minimum wage earner has to work a little more than 1-1/2 hours to buy a liter of milk. (In the United States milk would have to be priced at $1.36 per quart to be comparable.) It is very doubtful that recombined milk could compete with this price for fluid milk now that the nucleus of potential customers (U. S. employees and their families) have been withdrawn from the area. Some could afford to pay more for recombined milk but it is not certain that such limited demand would make the investment worthwhile.

Venezuela

Venezuela Is Now The World's Largest Livestock Market: It will continue to be for at least the next 5 years. Mexico was formerly this country's most active export market due largely to the $10 million dollar Export-Import Bank loan for the purchase of livestock. Now Venezuela has begun a 200 million dollar, 5-year beef cattle purchase program. Venezuela also may soon initiate an extensive purchase program for dairy cattle and swine. Therefore, no other country in the world affords U. S. breeders a better market. In the past 2 years Venezuela has bought over 2,300 head of U. S. dairy cattle.

Venezuelan Market Needs More Personal Attention: With the large potential share of this market available to U. S. breeders, much more emphasis should be given in furnishing services to Venezuelan buyers than in the past.

Venezuela Makes Great Strides in Animal Disease Control: Venezuela is engaged in an intensive program to eradicate tuberculosis and brucellosis. They are using the test and slaughter method, and the government is paying for the infected animals destroyed. Progress has been phenomenal.

Sanitary Regulations Rigidly Enforced: Venezuela enforces, by heavy fines, its law against milk dilution. Bacteria limits in the milk are also carefully checked. All milk sold to the public now must be pasteurized, whether for fluid or industrial use.

The Venezuelan Market Should Not Be Taken For Granted: Imported cattle are being bought for cash and, therefore, the Venezuelans can buy wherever the best bargains and the best service are available. U. S. breeders can obtain a very large share of this market, but they will have to work to get and keep their potential share.

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FD 2-59
February 27, 1959

U. S. DAIRY EXPORTS UNDER TITLE I, PUBLIC LAW 480, 1957 AND 1958

The whole milk equivalent of U. S. dairy product exports under Title I, Public Law 480 (sales for foreign currencies) totaled 690 million pounds in 1958, almost 4 times as much as in 1957. A sharp increase in butter sales accounted for 82 percent of the increase.

Shipments of nonfat dry milk showed the largest absolute gain, totaling 61.9 million pounds, over 3 times the amount in 1957. Large shipments of nonfat went to Turkey and Poland for the first time and shipments to India, Israel, and the Philippines were significantly larger than in previous years. Cheese shipments were 11.1 million pounds, about twice that shipped in 1957. Shipments of canned milk, all of which was evaporated milk, totaled 6.6 million pounds, about the same as in 1957.

Countries making sizable purchases of dairy products with foreign currencies for the first time in 1958 were Brazil, Colombia, Poland, and Turkey. From the beginning of the Public Law 480 program through calendar year 1958, a total of 15 countries have purchased dairy products under Title I agreements. Since the first Title I sale in early 1955, a total of 1,162 million pounds (whole milk equivalent) have been exported under this program.

DAIRY PRODUCTS: U. S. exports under Title I, Public Law 480, 1957 and 1958

Destination	Butter 1/		Cheese		Condensed milk		Evaporated milk		Dry whole milk		Nonfat dry milk	
	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Brazil--------	---	3,631	---	---	---	---	---	---	---	---	---	---
Burma---------	---	---	---	---	5,307	---	---	---	---	---	---	---
Colombia------	---	255	---	---	---	---	---	---	---	---	---	907
Greece--------	---	---	571	265	---	---	5,446	6,648	---	---	---	---
India---------	---	---	---	---	---	---	---	---	---	---	10,971	15,000
Israel--------	654	16,682	3,518	5,612	---	---	---	---	---	472	2,714	19,963
Korea---------	---	---	978	---	---	---	---	---	209	---	---	---
Pakistan------	3,059	5,109	---	---	---	---	---	---	---	---	---	620
Paraguay------	---	---	---	---	---	---	---	---	559	---	---	---
Peru----------	---	93	---	---	---	---	---	---	---	---	---	543
Philippines---	---	---	155	216	---	---	---	---	---	---	3,746	11,195
Poland--------	---	---	---	---	---	---	---	---	---	---	---	10,945
Taiwan--------	---	---	---	---	1,773	---	1,104	---	1,475	---	---	---
Thailand------	46	176	---	---	---	---	---	---	---	---	68	360
Turkey--------	---	1,290	---	4,976	---	---	---	---	---	---	---	2,411
Total---------	3,759	27,236	5,222	11,069	7,080	---	6,550	6,648	2,243	472	17,499	61,944

1/ Includes butter equivalent of anhydrous butterfat and ghee.

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WORLD OUTPUT OF DAIRY PRODUCTS

IN THIRD QUARTER, 1958

Canned milk and dried milk production increased in the principal producing countries, but butter and cheese output declined in the third quarter of 1958 compared with the same quarter of 1957. Milk production was up in Australia despite a late spring. In New Zealand, record production in July and August offset the lower output of September caused by dryness.

Milk production in West Germany continued high. In France, grass was plentiful and milk production in the third quarter was above a year earlier. Output in Norway was practically unchanged from a year ago. In Denmark, dairy cattle numbers were down; production also was affected by somewhat unfavorable weather early in the quarter. Reduced milk production in the United Kingdom was also the result of lower numbers and bad weather. Other countries reporting a decline in milk production in the third quarter were Sweden and Ireland. In Canada, milk output increased, due principally to higher yields. Production in the United States dropped slightly below the 1957 level.

Factory butter production in the third quarter of 1958 declined 2 percent below the 1957 level. The increased milk production in Australia and New Zealand was reflected in higher butter output. More milk was available for butter in West Germany and output was well above that of a year ago. The quantity of milk available for manufacturing in Denmark and Sweden was in relatively short supply and butter production was down. In Ireland, butter production declined, following smaller milk deliveries to creameries. Lower milk output and higher consumption caused a considerable reduction in the production of butter in the United Kingdom. Less butter was manufactured in France and Norway in third quarter, 1958, than a year earlier. In Canada, butter continued to take the largest share of the increase in milk production. Butter output was down in the United States.

Cheese production in factories in the July-September quarter, 1958, dropped slightly below the corresponding quarter of 1957. Much of the increase in milk production in Australia was used to make cheese. In New Zealand, output continued to decline. Production in Denmark and Norway was well above that of a year ago. Somewhat smaller increases occurred in France and Sweden. With less milk available for manufacturing in the United Kingdom, cheese production declined.

Total canned milk production rose 3 percent in the third quarter of 1958. France, the United Kingdom and the United States reported heavier and Canada and Argentina smaller production in this period. Output in West Germany showed practically no change from a year earlier.

Overall dried milk production increased 8 percent in the third quarter, 1958, compared with the third quarter, 1957. The United Kingdom, France and Argentina reported increased outturn in this quarter. In Canada, the higher output of total dried milk was attributed to heavier nonfat dry milk production. Output declined in Australia, Sweden and West Germany, due mainly to smaller nonfat production. Total dried milk production in the United States dropped slightly below comparable 1957.

Current Conditions Abroad:

New Zealand: Pastures throughout the country are generally good, though there are indications that another dry spell like that in the winter of 1958 may be developing.

Denmark: Domestically produced feeds are ample.

West Germany: The health of cattle is good, feed and roughages are in good supply and milk production is expected to continue high.

FACTORY DAIRY PRODUCTS: Output in principal producing and exporting countries, July-September, 1958 (preliminary) with comparisons

Country	Butter				Cheese			
	1957	1958		July-Sept.1958 compared with July-Sept.1957	1957	1958		July-Sept.1958 compared with July-Sept.1957
	July-Sept.	Apr.-June	July-Sept.		July-Sept.	Apr.-June	July-Sept.	
	1,000 pounds	1,000 pounds	1,000 pounds	Percent	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Canada	115,925	109,123	125,200	108	1/ 38,865	1/ 28,590	1/ 34,804	90
United States	322,771	427,200	311,570	96	356,814	440,290	356,350	100
Denmark	102,955	103,396	86,420	84	57,540	75,177	63,493	110
Finland	46,700	47,379	---	---	---	---	---	---
France 2/	154,300	176,400	144,100	93	176,400	225,000	182,400	103
Germany, West	192,896	230,669	205,351	106	---	---	---	---
Ireland	44,576	39,054	43,120	97	---	---	---	---
Netherlands	54,894	75,464	---	---	112,655	125,700	---	---
Norway	9,225	12,148	8,649	94	20,622	27,190	23,379	113
Sweden	60,845	58,631	57,921	95	33,233	37,110	34,572	104
Switzerland	17,578	13,996	---	---	43,671	40,834	---	---
United Kingdom	18,592	31,360	2/ 13,100	70	62,944	79,296	2/ 50,000	79
Argentina	19,394	26,368	16,645	86	55,140	60,516	46,737	85
U. of So. Africa	15,376	16,297	---	---	5,321	4,677	---	---
Australia	80,616	56,481	82,593	102	20,630	10,553	21,950	106
New Zealand	94,853	48,315	98,229	104	36,490	21,250	32,108	88

Country	Canned Milk				Dried Milk 3/			
	1957	1958		July-Sept.1958 compared with July-Sept.1957	1957	1958		July-Sept.1958 compared with July-Sept.1957
	July-Sept.	Apr.-June	July-Sept.		July-Sept	Apr.-June	July-Sept.	
	1,000 pounds	1,000 pounds	1,000 pounds	Percent	1,000 pounds	1,000 pounds	1,000 pounds	Percent
Canada	4/ 117,566	4/ 126,635	4/ 104,623	89	5/ 51,770	5/ 63,640	5/ 75,038	145
United States	6/ 640,326	6/ 777,050	6/ 662,825	104	384,597	614,300	382,150	99
Belgium	---	---	---	---	24,521	---	---	---
France 2/	28,200	40,100	38,100	135	7,300	25,800	27,300	374
Germany, West	187,090	210,194	186,896	100	40,536	40,050	32,608	80
Netherlands	164,463	170,080	---	---	57,981	88,864	---	---
Sweden	---	---	---	---	12,981	15,056	12,039	93
United Kingdom	71,232	149,856	2/ 91,000	128	33,600	56,896	2/ 44,600	133
Argentina	5,597	4,579	2,601	46	3,678	4,124	4,188	114
Australia	31,069	16,970	---	---	22,826	10,478	22,156	97

1/ Cheddar cheese only. 2/ Estimated. 3/ Dried whole milk and nonfat solids production. 4/ Both bulk and case goods. 5/ Includes dried milk for animal feeding. 6/ Evaporated whole and condensed whole case goods only.

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